3668

Before the

UNITED STATES COPYRIGHT ROYALTY BOARD

Library of Congress

Washington, D.C.

ORIGINAL

```
---------------------------:
In Re:                     : Docket No.
                           : 15-CRB-0001-WR
Determination of   Royalty : (2016-2020)
Rates and Terms for        : Volume 14-PUBLIC
Ephemeral Recording and    : Pages 3668-3685
Digital Performance of     : Pages 3708-3711
Sound Recordings (Web IV)  : Pages 3717-3902
---------------------------: Pages 3917-3965
```

PUBLIC SESSION

                                    Washington, D.C.

                              Thursday, May 14, 2015

     The hearing in the above-entitled matter was

convened at 9:06 a.m.

BEFORE COPYRIGHT ROYALTY JUDGES:

  SUZANNE M. BARNETT, CHIEF JUDGE

  DAVID R. STRICKLER, JUDGE

  JESSE FEDER, JUDGE

```
 1   A P P E A R A N C E S

 2   On behalf of SoundExchange:
        MUNGER TOLLES & OLSON, LLP
 3      GLENN POMERANTZ, ESQUIRE
        355 South Grand Avenue, 3rd Floor
 4      Los Angeles, California 90071
        213-683-9107
 5
     On behalf of Pandora Media, Inc.
 6      WEIL GOTSHAL & MANGES, LLP
        BRUCE RICH, ESQUIRE
 7      767 Fifth Avenue
        New York, New York 10153
 8      212-310-8000
             -and-
 9      JACOB EBIN, ESQUIRE
        AKIN GUMP STRAUSS HAUSER & FELD, LLP
10      One Bryant Park
        Bank of America Tower
11      New York, New York 10036
        212-872-1000
12
     On behalf of National Association of Broadcasters:
13      WILEY REIN, LLP
        BRUCE G. JOSEPH, ESQUIRE
14      KARYN ABLIN, ESQUIRE
        MICHAEL STRUM, ESQUIRE
15      1776 K Street, N.W.
        Washington, D.C. 20006
16      202-719-7453

17   On behalf of iHeartMedia, Inc.
        KELLOGG, HUBER, HANSEN, TODD,
18      EVANS & FIGEL, PLLC
        JOHN THORNE, ESQUIRE
19      SCOTT ANGSTREICH, ESQUIRE
        TRES WILLIAMS, ESQUIRE
20      1615 M Street, N.W.
        Suite 400
21      Washington, D.C. 20036
        202-326-7992
22
     On behalf of SiriusXM Radio:
23      ARENT FOX, LLP
        JACKSON D. TOOF, ESQUIRE
24      1717 K Street, N.W.
        Washington, D.C. 20006
25      202-857-6000
```

3670

```
 1  APPEARANCES (CONTINUED):

 2

    On behalf of National Religious Broadcasters
 3  Noncommerical Music License Committee:
       WILEY REIN, LLP
 4     KARYN ABLIN, ESQUIRE
       JENNIFER ELGIN, ESQUIRE
 5     1776 K Street, N.W.
       Washington, D.C. 20006
 6     202-719-7008

 7  On behalf of Educational Media Foundation:
       DAVID D. OXENFORD, ESQUIRE
 8     WILKINSON BARKER KNAUER, LLP
       2300 N Street, N.W.
 9     Suite 700
       Washington, D.C. 20037
10     202-783-4141

11

12

13

14

15

16  ALSO PRESENT:
    For SoundExchange:
17  Kelly Klaus, Melinda LeMoine, Martha
    Larraondo-Klipper, Anjan Choudhury, Colin Rushing,
18  Kuruvilla Olasa

19  For SiriusXM:
    Cynthia Greer
20

21  For Pandora:
    Todd Larson, Benjamin Marks
22

23

24  Bonnie L. Russo, Capital Reporting Company

25
```

3671

1   C O N T E N T S

2   EXAMINATION OF   DIR   CROSS   RED   REC
     JON PEDERSEN
3
     BY MR. ANGSTREICH   3673   3709
4   BY MR. CHOUDHURY   3686

5

6   EXAMINATION OF
     LAWRENCE T. ROSIN
7
     BY MR. MARKS   3717   3798
8   BY MR. KLAUS   3747

9
     EXAMINATION OF
10   DOMINQUE M. HANSSENS, Ph.D.

11   BY MS. ABLIN   3806   3868
     BY MS. LEMOINE   3836
12
     EXAMINATION OF
13   STEVEN PETERSON

14   BY MR. JOSEPH   3872
     BY MR. POMERANTZ   3893
15
     EXAMINATION OF
16   ROMAN WEIL, Ph.D.

17   BY MR. MILLS   3917
     BY MR. OLASA   3939
18

19

20

21

22

23

24

25

3672

```
 1                  EXHIBITS ADMITTED IN EVIDENCE

 2

     Pandora
 3   Exhibit 5021    Pedersen Rebuttal Testimony         3722

 4


 5   SoundExchange
     Exhibit 2257    IHeartMedia Royalty Statement       3778
 6   Exhibit 2284    Survey Results                      3751
                     (Without Prejudice)
 7   Exhibit 2285    Survey Results                      3751
                     (Without Prejudice)
 8   Exhibit 1735    2011 Survey                         3777
     Exhibit 2267    Infinite Dial Survey                3778
 9


10


11   IHeartMedia
     Exhibit 3220    Pedersen Testimony                  3679
12   Exhibit 3221    Comparisons of SoundExchange        3682
                     Revenue Definitions
13


14
     NAB
15   Exhibit 4012    Hanssens Testimony                  3811
     Exhibit 4013    Hanssens Rebuttal Testimony         3875
16   Exhibit 4011    Hanssens Written Testimony          3922

17

18

19

20

21

22

23

24

25
```

3673

```
 1              P R O C E E D I N G S

 2
                (PUBLIC SESSION)
 3

 4              CHIEF JUDGE BARNETT:  Good morning.

 5   Please be seated.

 6              JUDGE STRICKLER:  We have more books.

 7   Show up and there they are.

 8   JON PEDERSEN,

 9   being first duly sworn, to tell the truth, the whole

10   truth and nothing but the truth, testified as

11   follows:

12              MR. ANGSTREICH:  Thank you, Your Honor.

13   Good morning.

14              CHIEF JUDGE BARNETT:  Good morning.

15      DIRECT EXAMINATION BY COUNSEL FOR IHEARTMEDIA

16              BY MR. ANGSTREICH:

17      Q.  Mr. Pedersen, because there are two Pedersens,

18   if you could just spell your name for the record.

19      A.  Sure, Jon, J-O-N, middle initial D, last name

20   Pedersen, P-E-D as in David, E-R-S-E-N.

21      Q.  Thank you.  Mr. Pederson, where do you work?

22      A.  IHeartMedia.

23      Q.  What is your current position there?

24      A.  I'm CFO of markets, sales and shared services,

25   slight change from the testimony.  I was recently
```

1   promoted a couple of months ago.

2   Q.   Congratulations. Briefly, what are your

3   responsibilities in your role?

4   A.   Sure. I manage finance accounting and

5   infrastructure for the radio markets, as well as the

6   national sales team, all the accounting finance

7   credit collections, groups down in San Antonio, and I

8   also oversee the finance area for iHeartRadio.

9   Q.   Does that responsibility include making

10 payments under the statutory license and direct

11 licenses?

12   A.   It does. The finance team, as well as some of

13 the teams at iHeartRadio are responsible for royalty

14 statements related to these agreements and that's

15 under my supervision.

16   Q.   How long have you been at iHeartMedia?

17   A.   Since March 2014.

18   Q.   Before you came to iHeartMedia, did you work in

19 the music industry?

20   A.   Yes. In 2005, I joined Warner Music Group as

21 assistant controller. I was assistant controller at

22 Warner Music for three years and then I was promoted

23 to controller in September 2008, and I was at Warner

24 Music through September 2011 as controller.

25   Q.   And as assistant controller and controller,

 1   could you briefly describe what your responsibilities

 2   were there?

 3   A.   Sure. I handled all the SEC filings for

 4   accounting, technical accounting, financial planning

 5   analysis groups, budget forecasting, all of the --

 6   again, all of the core findings and accounting

 7   functions for the entire company rolled up into my

 8   group.

 9   Q.   And what, if any, interactions with

10   SoundExchange did you have in that role?

11   A.   Sure. As the -- as SoundExchange was growing

12   and was starting to become a meaningful revenue

13   stream for the record labels, I spent -- I took

14   numerous trips down to visit with SoundExchange, with

15   -- meet with their folks about trying to understand

16   the revenue streams that were coming to Warner Music

17   from SoundExchange and trying to figure out how to

18   accelerate payments.

19   It was a nascent process back in the day and we

20   were really trying to help them figure out how to get

21   money out of some of these things quicker.

22   MR. CHOUDHURY: Your Honor, I believe this

23   testimony is beyond the scope of direct testimony.

24   There's nothing about Mr. Pedersen's meetings with

25   SoundExchange in his direct testimony.

1   MR. ANGSTREICH: Your Honor, in Paragraph

2 7 of his direct testimony, Mr. Pedersen specifically

3 describes that SoundExchange began as a smaller

4 business within -- and talked about how it grew with

5 regard to accounting. SoundExchange has objected to

6 the introduction of this paragraph for lack of

7 foundation. I'm laying the foundation for the

8 paragraph so that when the objection comes up, you

9 will be able to rule on it.

10   CHIEF JUDGE BARNETT: Overruled.

11   BY MR. ANGSTREICH:

12   Q. Mr. Pedersen, in addition, did you have any

13 interactions with Warner's direct licensed service

14 partners?

15   A. Sure. I mean, the -- as part of the label's

16 business, we were involved in licensing our content

17 to virtually every service in the planet, from

18 Spotify to defunct services like Imeem and Wawa and

19 just every -- Rhapsody, everything that was out

20 there, and as you know, being at Warner from 2005 on,

21 as digital businesses were growing, we had to build

22 an infrastructure as to how to ingest all of the data

23 that was coming along so we could pay royalties on

24 all of the songs and the plays that came through from

25 all the different services.

1   Q. And you said you left Warner in 2011. Why did

2 you leave?

3   A. Yeah, the company was sold to -- it was a

4 private equity ownership and we sold the company, and

5 the sale closed in July 2011, and most of the senior

6 financial leadership left as part of the turnover, as

7 part of the acquisition.

8   Q. And what involvement, if any, did you have in

9 the sale of Warner Music Group?

10   A. I was very involved with the bankers. Goldman

11 was our banker, and I was principally involved in

12 putting together the deal model and the five-year

13 projections which included everything from revenue

14 projections to margin projections versus all the

15 different revenue streams, physical, CD, digital

16 licensing as well as other businesses that we were

17 getting into at the time, too, so basically, soup to

18 nuts, the financial modeling process and due

19 diligence.

20   MR. CHOUDHURY: Your Honor, this is

21 clearly beyond the scope of his testimony. There is

22 nothing about his work in the financial modeling for

23 Warner in his testimony.

24   MR. ANGSTREICH: Again, Your Honor --

25   CHIEF JUDGE BARNETT: This is just his

1 professional background. I think it's allowable.

2 Overruled.

3   MR. ANGSTREICH: Thank you, Your Honor.

4   BY MR. ANGSTREICH:

5   Q. Mr. Pedersen, speaking of your testimony, if

6 you could turn to Tab 1 in your binder.

7   Do you recognize this document?

8   A. Yes. This is the testimony I submitted

9 earlier.

10   Q. If you could turn to the last page, is that

11 your signature?

12   A. Yes, that is my signature.

13   Q. And now, Mr. Pedersen, have there been any

14 corrections to your testimony since it was initially

15 filed?

16   A. There is. On the top of Page 5, the top line

17 was mistakenly omitted from the original testimony.

18 This is the corrected testimony.

19   My understanding is it was provided this week

20 to everybody, so everybody should have the right one.

21   MR. ANGSTREICH: Your Honor, this is the

22 line at the top of Page 5 that starts with the

23 section symbol 1M, in parentheses, comma, S, in

24 parentheses due to our printing glitch, it was

25 omitted from the restricted version although a black

3679

1 outline was in the originally-filed public version,

2 so I'm going to blame Microsoft.

3   CHIEF JUDGE BARNETT: Might as well.

4   MR. ANGSTREICH: Your Honors, I move to

5 admit Tab 1 which is iHeart Exhibit 3220 into

6 evidence.

7   MR. CHOUDHURY: No objection.

8   CHIEF JUDGE BARNETT: 3220 is admitted.

9   (IHeartMedia Exhibit No. 3220 was admitted

10 into evidence.)

11   BY MR. ANGSTREICH:

12   Q. Mr. Pedersen, you've reviewed the SoundExchange

13 terms and conditions proposal?

14   A. Yes, I have.

15   Q. Can you turn to Tab 2 in your binder.

16   What is this document, Mr. Pedersen?

17   A. This is the proposed rates and terms of the --

18 that SoundExchange is proposing for the industry.

19   Q. Is this the specific one you had reviewed in

20 connection with your testimony?

21   A. No. This is -- it's slightly altered. This is

22 an amended version, but my understanding in reading

23 through it, it is substantially the same as what I

24 had reviewed previously.

25   MR. ANGSTREICH: We've marked this as

1   iHeart Exhibit 3639 for identification purposes only.

2   BY MR. ANGSTREICH:

3   Q.   Can you turn to Tab 3 in your binder,

4   Mr. Pedersen?

5   A.   Sure.

6   Q.   Mr. Pedersen, what is this document?

7   A.   It's just some bullet points that I put

8   together that really summarized the key points of my

9   testimony.

10   Q.   And I'm not going to take you through all of

11   these, but I would like to draw your attention to the

12   second subbullet: "Use of fair method of allocation

13   leads to arbitrary results and disputes."

14   Could you summarize briefly your testimony as

15   to that point?

16   A.   Sure.   SoundExchange's fair method of

17   allocation proposal allows for wide interpretation of

18   how to actually allocate revenue between sources.   If

19   you -- there are no hard and fast rules governing how

20   that would happen in the economy literature, which

21   means if you took ten reasonable people and have them

22   try to do this, you'd come up with ten different

23   results which would lead to fairly arbitrary

24   differences.

25   It would also cause -- to be honest,

1 SoundExchange has audit rights and, of course, we are

2 actually under a SoundExchange audit right now, and

3 it is easy to audit when you have facts, but if

4 there's lots of interpretation and gray area, I'm

5 trying to actually come up with a result that is

6 predictable, understandable across the industry and

7 how to be auditable to be -- to me, I think it is

8 just completely impractical.

9   Q. Can you give us a specific instance where those

10 kinds of problems might arise?

11   A. Surer. We have some radio stations that play

12 music 24 hours a day, seven days a week. We have

13 some radio stations that have -- that are all talk,

14 but then we also have -- there are some of our

15 contemporary hits radio stations have personalities

16 on.

17   For an example, in morning drive in LA, you

18 have Ryan Seacrest, one of our biggest, most popular

19 stations, one of our highest billing stations, but

20 with Ryan on the air, he talks a lot. We may play

21 one, two, three songs an hour, some songs, some days,

22 there might be five songs an hour, but it would be

23 impossible for me to try to determine, you know, if,

24 you know, the revenue that is generated during that

25 program, how much of it is generated because Ryan

 1   Seacrest is on the air versus how much is dedicated

 2   to -- towards the music that gets played on the

 3   channel.

 4   This goes back, you could devise a way to try

 5   to determine that, but, you know, it would be very,

 6   very subject to opinion and interpretation and

 7   reasonable people could disagree on the methodology.

 8   Q.   And just to be clear, Mr. Seacrest's show is

 9   simulcast on the Internet?

10   A.   It is, yes. All of our stations are simulcast

11   on iHeartRadio.

12   Q.   Could you turn to Tab 4, Mr. Pedersen?

13   A.   Sure.

14   Q.   What is this document?

15   A.   This is a document that we put together to just

16   kind of compare the SoundExchange revenue definitions

17   versus our agreement with Warner Music Group and also

18   versus our independent agreements that we have direct

19   with some of the other smaller labels.

20   MR. ANGSTREICH: Your Honors, I'd move to

21   iHeart Exhibit 3221 into evidence.

22   MR. CHOUDHURY: No objection.

23   CHIEF JUDGE BARNETT: 3221 is admitted.

24   (IHeartMedia Exhibit No. 3221 was admitted

25   into evidence.)

1   MR. ANGSTREICH: Thank you, Your Honor.

2   BY MR. ANGSTREICH:

3   Q. Mr. Pedersen, if you could just turn back to

4 Tab 3?

5   A. Sure.

6   Q. So the second set of bullets, talking about the

7 payment schedule, could you briefly describe -- and I

8 think you can do this one without clearing the

9 courtroom, the next one not so much.

10   But could you briefly describe the four-stage

11 process that is referenced in the first bullet?

12   A. Sure. I mean, the first stage is actually --

13 it's more technological, where we pull all of the

14 data from our servers, from Accumulo, all the logs,

15 and so we can actually try to determine how many

16 plays of any particular song that there are and get

17 all the data together.

18   The second stage is the one-year stage where we

19 do lots of review and quality assurance checks to try

20 to make sure that we actually have captured all of

21 the data, all the plays from all the different

22 stations. We -- the format flips all the time, so

23 it's a fairly complicated and involved process, and

24 in that state, we also sometimes find errors and when

25 we find errors, there are times when we actually have

1   to go back to Step 1 and rerun the data to try to

2   make sure that we have a complete data set in order

3   to try to calculate what we need to pay for royalty.

4   Step 3 is more the senior finance review, as

5   well as -- that is when it kind of comes up to my

6   level, where I meet monthly with the team to actually

7   go through the numbers and do high level quality

8   checks as well as making sure that what we are seeing

9   in the numbers actually make sense versus what we

10   understand is happening on the product.

11   And then fourth is once we are satisfied that

12   we can -- actually are okay to pay, then there is a

13   process we have to actually go through and actually

14   create the 50-odd-plus royalty statements and then

15   actually mechanically make payments to all of our

16   various partners.

17   Q.   And how long does this process take?

18   A.   Well, for our direct deals, with the

19   independents, we have always have a 45-day term, and

20   we're -- we hit that target for the most part all the

21   time. The Warner deal has a 30 day and we have

22   missed the 30 --

23   Q.   Just to caution you, if you speak in

24   generalities, I think we can keep the courtroom open.

25   A.   Sure. Right. So the process overall takes,

3685

1 you know, somewhere between, you know, 28 and 45 days

2 depending on what happens in any particular month.

3 It is not an exact science. We continue to improve

4 and make changes to our product and infrastructure.

5 Sometimes it makes it better, sometimes it makes it

6 worse. We break things and we ultimately -- it is a

7 pretty complicated, labor intensive process, but

8 it's, generally, you know, between 30 and 45 days is

9 where we come out.

10   MR. ANGSTREICH: I have one more question

11 and I don't think I can do this in open court.

12   CHIEF JUDGE BARNETT: Anyone in the

13 hearing room who has not signed a nondisclosure

14 certificate, please wait outside for a few minutes.

15   (THIS ENDS PUBLIC SESSION)

16   (RESTRICTED SESSION BOUND SEPARATELY)

17

18

19

20

21

22

23

24

25

3686

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3708

1   (THIS BEGINS PUBLIC SESSION)

2   BY MR. CHOUDHURY:

3   Q.   Mr. Pedersen, just a couple of additional

4 questions with respect to your testimony.

5   For SoundExchange, your payment obligations

6 require providing a report of use, a statement of

7 account and actually providing the payment, right?

8   A.   Correct.

9   Q.   In your testimony, when you are describing the

10 process and again, only at a general level, are you

11 talking about the process for all of iHeart's payment

12 reports to all of its partners, or just its payment

13 obligations to SoundExchange?

14   And here, it's Paragraph 28 and 29.

15   A.   In 28 and 29, we are talking about everything.

16   Q.   Okay. You haven't testified about how many

17 times iHeartMedia has been late in its payment

18 obligations to SoundExchange, correct?

19   A.   No.

20   Q.   And you haven't testified about whether your

21 current -- you haven't testified about how your

22 current process would be changed if there was a

23 30-day payment window, correct?

24   A.   I have not.

25   MR. CHOUDHURY: That's all the questions.

3709

1   CHIEF JUDGE BARNETT: Mr. Angstreich?

2   MR. ANGSTREICH: I just have one question

3 on redirect. It will take three questions to get to

4 the one question.

5   REDIRECT EXAMINATION BY COUNSEL FOR IHEARTMEDIA

6   BY MR. ANGSTREICH:

7   Q. Could you turn to Tab 5 in the big binder,

8 Mr. Pedersen?

9   A. Sure.

10   Q. Does this look to you to be the agreement

11 between iHeart and Warner?

12   A. It does appear to be, yes.

13   Q. Could you turn to Page 17 of that agreement,

14 and it's labeled as 18 of 112 on the bottom

15 right-hand corner.

16   A. Okay.

17   Q. And do you see a term -- roughly in the middle

18 of the page, that talks about late payments?

19   A. Yes.

20   Q. That is the late payment provision in the

21 Warner agreements?

22   A. Yes.

23   MR. CHOUDHURY: Your Honor, we object on

24 foundation. This witness has already said that he

25 hasn't reviewed the contract.

1   MR. ANGSTREICH: Your Honor, Mr. Choudhury

2 made a representation --

3   CHIEF JUDGE BARNETT: He hasn't testified

4 what?

5   MR. CHOUDHURY: He's testified that he is

6 not familiar with the contracts. He wasn't involved

7 in the negotiations, when we tried to use the

8 contracts with him, it was the objection that was

9 made.

10   CHIEF JUDGE BARNETT: Your response?

11   MR. ANGSTREICH: Mr. Choudhury made a

12 false representation to this panel regarding the

13 content of the late payment term in the Warner

14 agreement. I'm not going to say it out loud because

15 the agreement is confidential, but Your Honors can

16 see that what Mr. Choudhury said was the late payment

17 term in the Warner agreement is just false. That is

18 all I was trying to bring out.

19   CHIEF JUDGE BARNETT: Mr. Angstreich, the

20 panel is well aware that the comments of the

21 attorneys are not evidence.

22   MR. ANGSTREICH: Thank you, Your Honor.

23   JUDGE STRICKLER: I have one question for

24 the witness, but unfortunately, I think it is in

25 closed session.

3711

1   (THIS ENDS PUBLIC SESSION)

2   (RESTRICTED SESSION BOUND SEPARATELY)

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3712

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

```
 1              (THIS BEGINS PUBLIC SESSION)

 2   LAWRENCE T. ROSIN,

 3   being first duly sworn, to tell the truth, the whole

 4   truth and nothing but the truth, testified as

 5   follows:

 6              MR. MARKS:  Your Honor, we have some

 7   demonstratives.  We'll have them on the screen but we

 8   also have printouts in case it is easier to look at

 9   the printouts and move forward.

10              CHIEF JUDGE BARNETT:  Thank you.  I am

11   suddenly mourning America's forests.  The local

12   public radio station is doing a pledge drive and for

13   every new member they are donating a tree in the

14   forest, so I think I will order all of you to become

15   members.

16              And we are in open session?

17              MR. MARKS:  We are in open session and we

18   will remain in open session throughout his direct

19   testimony.

20              CHIEF JUDGE BARNETT:  Thank you.

21              MR. MARKS:  Can we pull up the slides?

22   Thank you.

23      DIRECT EXAMINATION BY COUNSEL FOR PANDORA

24              BY MR. MARKS:

25      Q.  Mr. Rosin, could you please --
```

3718

1   MR. MARKS: Ready to go ahead?

2   CHIEF JUDGE BARNETT: Yes.

3   BY MR. MARKS:

4   Q. Mr. Rosin, could you please state your full

5 name for the record?

6   A. Lawrence Thomas Rosin.

7   Q. And would you please identify for the judges

8 any undergraduate and graduate degrees that you have?

9   CHIEF JUDGE BARNETT: Before we do that,

10 I'm sorry, spell your last name for the record

11 please.

12   THE WITNESS: It's spelled unusually,

13 R-O-S-I-N.

14   CHIEF JUDGE BARNETT: Thank you.

15   BY MR. MARKS:

16   Q. And would you please identify for the judges

17 any undergraduate and graduate degrees that you have?

18   A. I have an undergraduate degree from Princeton

19 and I have an M.B.A. from the Wharton School at the

20 University of Pennsylvania.

21   Q. Mr. Rosin, where do you work?

22   A. I work at Edison Research in Somerville, New

23 Jersey.

24   Q. What is your position at Edison Research?

25   A. I am president and cofounder.

1   Q.   And how long have you worked at Edison?

2   A.   Since its founding in 1994.

3   Q.   And on a general level, could you please tell

4 the judges what Edison Research does?

5   A.   We are a survey research, market research

6 polling firm.

7   Q.   Could you please describe your past work

8 conducting surveys?

9   A.   We concentrate on two primary areas. We are

10 probably best known as the company that does the exit

11 polls for the U.S. television networks and the

12 Associated Press on election day for the presidential

13 election and the primary and midterm elections, and

14 as well, we have a broad practice relating to media

15 with specific specialization in music, radio, audio.

16   Q.   And who are some of the clients for whom you

17 have done survey work?

18   A.   We have a broad list of clients. Of course,

19 for the exit polls, it is the major U.S. television

20 news networks and the Associated Press as well as

21 subscribers to major newspapers around the country

22 and around the world. We work with many record label

23 music companies including many of the majors. We

24 have a broad practice in radio working with many

25 major and minor radio companies in the U.S.A., and

1   around the world, including what used to be called

2   Clear Channel which is now called iHeart. The

3   largest radio group in the U.K. called Global, the

4   largest radio group in Australia which is called

5   Southern Cross Austereo, and many others around

6   Europe, South America and elsewhere throughout the

7   world and of course here in North America.

8   Q. I didn't mean to interrupt.

9   A. We also work extensively in Internet audio. We

10   have worked with companies like Pandora, Spotify,

11   TuneIn Radio and many others, as well as we work more

12   broadly in the world of digital media with companies

13   like Google, Yahoo and others.

14   Q. What is the Infinite Dial?

15   A. The Infinite Dial is a series of research

16   projects we have been doing annually since 1998. We

17   field it in January of each year and it is a survey

18   done to very high research standards. We have been

19   tracking all the way back since the beginning of that

20   study, the development of various items relating to

21   digital audio, digital device adoption, streaming

22   media of all kinds, social media and many other

23   things, and it is a widely looked to and quoted study

24   that we do.

25   Q. What is the Share of Ear?

1   A.   Share of Ear is a newer research initiative

2 that we have been doing since last year. It is

3 similar in some ways to Infinite Dial but it is

4 instead, more of a measurement-oriented survey where

5 we are trying to measure the entire sort of broad

6 world of audio here in the United States, so that we

7 can get a comparison of the usage and size of the

8 different kinds of audio, for instance, broadcast

9 radio versus Internet radio versus satellite radio,

10 even if they owned music, podcast, music from music

11 television channels and many other things so it's

12 similar but a different initiative to --

13 more-oriented towards measuring of time spent.

14   Q.   Do you speak at conferences around the world on

15 the subject of Internet radio?

16   A.   Yes.

17   MR. MARKS: I would like to offer Mr.

18 Rosin as an expert in consumer survey research and

19 market research.

20   MR. KLAUS: No objection, Your Honor.

21   CHIEF JUDGE BARNETT: Mr. Rosin is thus

22 qualified.

23   BY MR. MARKS:

24   Q.   Mr. Rosin, did you prepare written rebuttal

25 testimony in connection with this proceeding?

3722

1   A. I did.

2   Q. I turn your attention to the thin black binder

3 on your desk. I placed before you what has been

4 marked for identification as Pandora Exhibit 5021.

5   Do you recognize this document?

6   A. Yes.

7   Q. What is it?

8   A. It is my written rebuttal testimony.

9   Q. And if you could please turn to the last page

10 of the testimony.

11   Is that your signature?

12   A. Yes.

13   Q. And are the attached figures and appendices the

14 materials that you reference in your written

15 testimony?

16   A. Yes.

17   MR. MARKS: I offer Pandora Exhibit 5021

18 into evidence.

19   MR. KLAUS: No objection, Your Honor.

20   CHIEF JUDGE BARNETT: 5021 is admitted.

21   (Pandora Exhibit No. 5021 was admitted

22 into evidence.)

23   BY MR. MARKS:

24   Q. Mr. Rosin, did you conduct a survey in

25 connection with your testimony in this proceeding?

1   A.   Yes.

2   Q.   Let me turn to the demonstratives that you have

3 in front of you.   They should also be on the screen,

4 whichever is more convenient for you.

5   Let me start by asking you: What did your

6 survey try to measure?

7   A.   Yeah, so we had two primary goals with our

8 survey.   The first was to test the notion of whether

9 on-demand audio services and what are called

10 noninteractive services are a substitute for each

11 other or if they serve different roles for consumers.

12   The second primary goal was to get a sense for

13 the willingness of the broad public to pay for access

14 to different types of digital music services.

15   Q.   And would you please describe, in general

16 terms, the methodology that you used in connection

17 with this survey?

18   A.   Yes.   So we did a nationally representative

19 telephone survey with a sample size of 2,006 people.

20 The survey was done at the very beginning of this

21 year.   We started in the field on January 2nd through

22 the 14th of January of this year.   The -- it was

23 sample of -- representative of all Americans ages 13

24 and older.   We dialed both landlines and cell phones

25 and then the data was weighted at the end to U.S.

3724

1   population statistics for age, gender, race and

2   region of the country.

3   Q.   And are the additional details of your survey

4   methodology set forth in your report?

5   A.   Yes.

6   Q.   Let me turn your attention to the next series

7   of slides which are also the figures that were

8   attached to your report.

9   What does Figure 1 show?

10   A.   So Figure 1 is the result of a rather

11   straightforward question. We asked respondents, as

12   we have done in other surveys, how important is it to

13   you to keep up to date with music, to get a sense for

14   simply that. How important music is to people.

15   As you can see on the graph, there's 17

16   percent, a relatively small percentage that said that

17   music -- keeping up to date with music is very

18   important to them, somewhat important was 39 percent,

19   and the largest chunk, 44 percent, said that keeping

20   up to date with music was not at all important to

21   them.

22   JUDGE STRICKLER: Excuse me, Counsel,

23   question. Good morning, Mr. Rosin.

24   THE WITNESS: Good morning.

25   JUDGE STRICKLER: When I read your

1 testimony, I found that question jarring because I

2 didn't understand why it was relevant at all as to

3 whether or not people kept up to date with music.

4 Obviously, I understood their purchasing habits and

5 their willingness to pay, although it's obviously

6 pertinent to this proceeding, but whether they keep

7 up to date with music seems like -- to me anyway, and

8 maybe you can explain why I might be wrong, an odd

9 question.

10   THE WITNESS: I'm not sure I consider it

11 odd. We have over the years tried lots of questions

12 geared towards how important is music to you, and

13 this has sort of proven to be over time sort of the

14 easiest for people to understand, and the one that

15 seems to work best.

16   For instance, we have tried in the past

17 this exact same question wording with the word new in

18 it and actually the numbers dropped very dramatically

19 in terms of saying very important would be

20 significantly smaller yet, and we tried how important

21 is music to your life. We have tried any number of

22 things. Tried to get a sense just for this. Where

23 is music in your life. How important is it to you.

24   JUDGE STRICKLER: Keeping up to date might

25 not necessarily correlate in any way with purchasing

1 habits. I might be very interested in the music of

2 the '80s and the '90s and have no interest in keeping

3 up to date whatsoever.

4   THE WITNESS: Right.

5   JUDGE STRICKLER: So this would not be

6 informative with regard to my purchasing habits. I

7 might be purchasing strictly '80s and '90s, even

8 '70s, but nothing before pre-1972.

9   THE WITNESS: Absolutely. And we also ask

10 other questions that get to that more directly.

11   JUDGE STRICKLER: Do your other questions

12 -- are your other questions and your -- the

13 population or the subpopulations of your survey

14 dependent at all upon how people answer this

15 question?

16   THE WITNESS: No. We certainly looked at

17 what each of these three groups said about all the

18 other questions in the survey, but depend upon,

19 certainly not.

20   JUDGE STRICKLER: So even if you had never

21 asked this question, the survey results would be just

22 as valid as otherwise would have been?

23   THE WITNESS: Oh, absolutely.

24   JUDGE STRICKLER: Thank you.

25   BY MR. MARKS:

1   Q. Let me turn to one of the questions that Judge

2   Strickler just asked.

3   Did your survey examine music spending habits?

4   A. Yes.

5   Q. And what did it show?

6   A. So you can see in Figure 2 here, again, a

7   somewhat straightforward question, in the past year,

8   approximately how much money have you spent

9   purchasing physical CDs or digital downloads --

10 digital songs and albums. So this is people's best

11 estimate.

12   They told us a precise number and we are just

13 grouping those results here. 45 percent of our

14 sample said that they had spent nothing on any kind

15 of music, physical or digital, in the year before the

16 survey and you can see the percentages. There, 21

17 percent said between one and 30 dollars and 18

18 percent said that they had spent more than what would

19 average out to $5 a month, $60 in the year before we

20 called them on the phone.

21 Q. Does this relate to the observation of the

22 80/20 rule of thumb that you describe in your report?

23 A. Certainly in a sense. I mean, the music

24 business is not unlike many other media or

25 entertainment-oriented businesses where there is a

1 minority of people who are very avid users or

2 purchasers, in this case, and a larger minority who

3 don't participate at all in the market or participate

4 on very light levels.

5   Q. Turning just to the next figure, what does this

6 next slide show?

7   A. So this Figure 3 here is the answers to a

8 question and actually, what is across the top, there

9 is not the full question so I'm going to open up the

10 questionnaire and read the totality of the question

11 so that you can hear everything we ask.

12   It is Question 9A in the survey. So the full

13 question was: "There are paid online music services

14 that give you on-demand access to a music library.

15 These services allow you to stream entire albums or

16 individual songs that you chose. You do not own this

17 music, but would have access for as long as you are

18 paying for that service. Some examples of the

19 services are Spotify, Rhapsody and Rdio. How likely

20 would you be to pay $9.99 every month for such an

21 Internet audio service?"

22   So the graph here -- Figure 3 is the results

23 and we asked this question not to everybody in the

24 sample, but to everyone who said they don't already

25 subscribe to Spotify Premium, so that is actually a

1 little over -- virtually everyone, but it's just a

2 little over 96 percent of our sample that does not

3 already tell us that they already subscribe to

4 Spotify Premium.

5   So here is the percentage of people that -- as

6 described in that question, and who said that they

7 were very, somewhat, not at all -- not very or not at

8 all likely, you can see the overwhelming majority

9 said not at all likely, 14 percent said not very, and

10 only three percent said they would be very likely,

11 with 6 percent somewhat likely, as with the question

12 posed this way at the $9.99 price point that was

13 proposed.

14   We then went on if you --

15   Q. Let me stop you there and ask you one follow-up

16 question. You mentioned that from the base reflected

17 in this figure, you had excluded subscribers to

18 Spotify Premium?

19   A. Right.

20   Q. Did you also exclude subscribers to Rhapsody or

21 Rdio?

22   A. We did not. They would have been asked this

23 question but they were extremely a small percentage

24 of the sample.

25   Q. So in your view, would it have made a

1 difference whether you include them or not?

2   A. No.

3   Q. Did you also do a similar analysis and test

4 lower price points?

5   A. Yes. So if you go to Figure 4, we asked the

6 same question but we said suppose the online service

7 just described, costs $4.99 a month and this is the

8 results where we took the people who said very likely

9 from the previous question and assumed them into the

10 red, and so into the very likely category.

11   And so very likely now goes up to 7 percent

12 including the people who said very likely at 4.99

13 plus the people that already said very likely. And

14 you still see though that the overwhelming majority

15 at $4.99 said they were not at all likely, with

16 another 15 percent saying not very likely.

17   Q. And did you test an even lower price point?

18   A. Yes. So then we went on and asked about $2.99.

19 Again, in this case, anyone who already said very

20 likely is included in the very likely category, very

21 likely now goes up to 14 percent of the population

22 saying they are very likely at $2.99 combined very --

23 went up to 30 percent and not at all is still a

24 majority of people just under 60 percent, 59 percent,

25 saying they are not at all likely to pay $2.99 every

1 month for such an Internet audio service.

2   JUDGE STRICKLER: Did you survey with

3 regard to any other price points that are not

4 included in the papers that we have here?

5   THE WITNESS: No, these are the only three

6 price points we have.

7   JUDGE STRICKLER: How did you select those

8 particular price points?

9   THE WITNESS: The 9.99 was tagged to the

10 current price of many of the prominent music services

11 including Spotify and others. And then 4.99 and

12 2.99, we kept the 99 cents thing just for

13 consistency's sake, and then we just sort of stepped

14 down from the 9.99 to other possible prices.

15   JUDGE STRICKLER: You had to make a

16 decision as to when to stop and you decided to stop

17 at 2.99?

18   THE WITNESS: Yes.

19   JUDGE STRICKLER: Were you interested in

20 prices? Did you consider whether or not to ask the

21 question how likely would you be to take a service if

22 it was free?

23   THE WITNESS: No. Not that way, no.

24   JUDGE STRICKLER: Thank you.

25   BY MR. MARKS:

1   Q.   Did you do a similar set of analyses of the

2 willingness of active listeners to noninteractive

3 services to pay for an on-demand service?

4   A.   Yes.   So Figures 6, 7 and 8 sort of follow the

5 same pattern and it's the same question and same

6 information, but it's shown only among people who

7 told us that they had used Pandora or other

8 noninteractive online services in the week before we

9 called them and again, excluding those who said that

10 they subscribed to Spotify Premium already.

11   So on Figure 6, you see the results from that

12 subgroup which is actually a little over 40 percent

13 of the total, so it's still a very large sample size

14 within the total sample, and you see numbers that are

15 similar. There is a little bit higher interest, but

16 numbers that are very similar to what we saw from the

17 total sample, very likely, still three percent, and

18 the big chunk of -- still a huge group within this

19 group of people who listened to noninteractive online

20 services saying they are not at all likely to

21 subscribe at the $9.99 price point.

22   Q.   Did you also analyze the impact of lowering the

23 price point for this subset of respondents?

24   A.   Yes.   You can see in Figure 7, the results

25 among the subgroup for the 4.99 price point and you

1 see there is a little bit more interest than among

2 the total sample, very likely now up to 9 percent,

3 combined varying somewhat up to 30 percent but the

4 majority saying not at all likely, and then you can

5 go on to Figure 8 and see the results among the

6 subgroup at the $2.99 price point.

7   Now varying somewhat likely at up to 42

8 percent, the still most common answer is 45 percent

9 for not at all likely at this price point among the

10 subgroup.

11   Q. Did you also analyze the willingness of

12 consumers to pay for a subscription to Pandora if the

13 free version of Pandora were no longer available?

14   A. Yes. That is reflected in Figure 9. Figure 9

15 was asked to anyone in our sample who said they had

16 listened to Pandora in the month before that we

17 called them for their survey, but did not already

18 subscribe to Pandora One, so we are not already using

19 Pandora One and we asked the question, as you see,

20 supposed the free version of Pandora no longer

21 existed, how likely would you be to pay $4.99 every

22 month, and just parenthetically, that is the current

23 price, to subscribe to Pandora One, the paid service

24 from Pandora that does not have any advertisements.

25   So you see here that these group of -- this

3734

1   group of people who are currently using the free

2   version of Pandora, the clear majority said that they

3   are not likely to subscribe to Pandora One even if

4   the free version were eliminated. Only 7 percent

5   said they'd be very likely, another 15 percent

6   somewhat likely, and so clearly, if the free version

7   of Pandora were to no longer exist, the likely

8   outcome is most people would scatter off looking for

9   other free options as opposed to paying up for a free

10   version of Pandora.

11   Q.   Let me direct your attention to Figure 10.

12   Could you please explain to the judges what

13   Figure 10 shows?

14   A.   Right. So Figure 10, you see in the headline

15   there, there is an ellipsis so again, in this case, I

16   want to read the full question because it was a

17   little bit more complicated.

18   So this is Question 10 in the questionnaire.

19   And so the full question went: "Now I want to

20   propose a hypothetical situation. Suppose all free

21   Internet radio or music services no longer existed.

22   This means that there would not be a free version of

23   Pandora or Spotify or any other similar free

24   services." There would not be FM radio stations

25   available via streaming -- "and there would not be FM

1 radio stations available via streaming. I'm going to

2 read four possible ways you might replace your

3 listening to free Internet radio music services.

4 Which of the following would you be most likely to do

5 instead."

6   And we had four options that were shuffled in

7 order so you got a random order of the first four,

8 and then everyone got a fifth option at the end.

9   So the four options were: "Pay a subscription

10 fee every month using on-demand Internet music

11 service like Spotify or Rhapsody, listen to free FM

12 radio on a traditional radio, listen to your CDs and

13 music downloads, watching your music videos, or

14 listening to music on YouTube or Vevo," and then

15 everyone got that -- "or would you just listen to

16 less music."

17   Of course, people could volunteer another

18 answer or say they didn't know or just say no answer.

19 And the graph in Figure 10 is the outcome of that

20 question and this was asked to anyone who had ever

21 listened to Internet audio.

22   JUDGE STRICKLER: May I ask you a

23 question? That part, that base?

24   THE WITNESS: Yes.

25   JUDGE STRICKLER: These individuals who

1 ever listened to Internet or audio.

2   THE WITNESS: Right.

3   JUDGE STRICKLER: So if I was just curious

4 one time to see how Pandora worked, I went on the

5 site, tried it, seeded one station, never went back

6 to it again, I'd qualify for that base because I

7 listened to Internet audit one time.

8   THE WITNESS: Let me make sure -- the

9 answer to that question.

10   Yes, so that would be the sum of a few

11 questions we asked about, have you ever listened to

12 the stream of an FM radio station or have you ever

13 listened to an online services that is not a stream

14 of an FM radio station like Pandora, Spotify or

15 another similar service.

16   JUDGE STRICKLER: So ever meant one time

17 or more?

18   THE WITNESS: It could mean one time, yes.

19   JUDGE STRICKLER: Did you consider whether

20 to change the base so that the base was individuals

21 who had listened to Internet audio more regularly?

22   THE WITNESS: We certainly did and can get

23 you that information.

24   JUDGE STRICKLER: When you say you can't,

25 you did it already and it's not reported or you would

1 have to run a new survey?

2   THE WITNESS: No, no, no. You can look at

3 any of these questions by further smaller subgroups

4 if one chooses to.

5   JUDGE STRICKLER: So you do have the data

6 as to those who responded to the question on Figure

7 10, broken down by the intensity of their listening?

8   THE WITNESS: It is certainly available,

9 that information, absolutely.

10   JUDGE STRICKLER: But you didn't think it

11 was needed to make -- to include in the report?

12   THE WITNESS: Well, this is what we

13 reported in the report. Again, there is any number

14 of ways one can look at data subgroups that one can

15 look at, and I happily can get the Court the

16 information among any subgroups that the Court might

17 be interested in.

18   So among everyone who was asked the

19 question, the people who have listened to Internet

20 radio, the biggest group said that they would -- you

21 see in blue, the 34 percent listened to free FM radio

22 on the traditional radio, the second biggest group in

23 green on the left said they would listen to their --

24 chose the option listen to their CDs and music

25 downloads.

1   Third was the red. 16 percent would watch

2   music videos or listen to music on YouTube or Vevo.

3   15 percent chose that last option, they would simply

4   listen to less music, and 9 percent said they would

5   pay a subscription fee every month using on-demand

6   service like Spotify or Rhapsody.

7   So even if every possible free option were

8   eliminated, only a single digital percentage, 9

9   percent of this group said that they would be likely

10 to pay to access a similar kind of service even if

11 all free options were eliminated. Free Internet

12 options were eliminated.

13   BY MR. MARKS:

14   Q.   Mr. Rosin, why did you chose to present five

15 options here as opposed to some other larger number

16 of options?

17   A.   You have to keep in mind that this is a

18 telephone survey, and there are limitations in each

19 survey, data collection methodology. There is, of

20 course, any number of ways that someone might replace

21 the time they were spending with Internet based audio

22 services if they were to cease to exist.

23   You have to try to sector them down and group

24 them in a way that people can keep in their head as

25 the interviewer is administering the survey, so that

3739

1 is why we limited it to these five options.

2   Q. Did your survey measure what time spent

3 listening to Pandora is replacing?

4   A. Yes. So we asked the question about that, that

5 is reflected in Figure 11, and so we asked anyone who

6 said they had listened to Pandora in the month before

7 we called them and again, I want to read the question

8 out so it is clear what we asked, so anyone like I

9 said, who listened to Pandora, we said: "Think

10 specifically about the time you spend listening to

11 Pandora. Is the time you spend listening to Pandora

12 mostly replacing time you spend listening to," and we

13 offered the following options: "Traditional

14 over-the-air AM FM radio stations, your CDs and music

15 downloads, other online music services, or is it new

16 listening time that is not taken from other sources

17 of audio listening."

18   People could, again, could volunteer other

19 responses. If someone said it came from other online

20 music services, we went on and asked those people

21 specifically what they said it was. We followed with

22 what kind of online music service is Pandora mostly

23 replacing. Is it the online stream of an FM radio

24 station, another Internet radio service, an on-demand

25 music service like Spotify or Rhapsody or YouTube or

1 Vevo.

2   So the graph here is the result of the

3 combination of those two questions, you see, by far,

4 the biggest grouping, over 46 percent said it was new

5 listening time not taken from other sources of audio

6 listening, which is consistent with other findings

7 about how technology and particularly Smartphone has

8 sort of expanded the opportunities that people have

9 to just consume audio in general.

10   After that, 23 percent said it came from

11 traditional over-the-air broadcast radio stations, a

12 nice amount said it came from their CDs or music

13 downloads, 18 percent, and only one percent said that

14 that time was mostly coming from an on-demand music

15 service like Spotify or Rhapsody.

16   Q.   With regard to the slice that referred to CDs

17 and music downloads, did the survey test in any way

18 whether that would be buying new CDs or listening to

19 CDs or downloads they already have?

20   A.   We didn't ask about the providence of the CDs

21 or downloads that they were replacing their time

22 with, how they got those CDs or how they got those

23 music downloads. That was just one of the categories

24 they could answer.

25   Q.   Did you do an analysis similar to the one

1 reflected in Figure 11 which relates to Pandora for

2 all noninteractive services?

3   A. Yes. So Figure 12 is the same question among

4 people -- anyone who said that they listened to any

5 other noninteractive service, for instance, iHeart,

6 iTunes and others, in the week before they were

7 called but not Pandora, and you see the results in

8 Figure 12 are extremely similar to what you saw in

9 Figure 11. With, in fact, the same 46 percent saying

10 it was new listening time and similar percentages for

11 the other items that we saw in Figure 11.

12   Q. What conclusions have you reached in connection

13 with your work in this proceeding?

14   A. So as you can see on the next page, the primary

15 conclusions that we came to are -- that the market

16 for paid on-demand services is a limited market. The

17 overwhelming majority of consumers telling us they

18 are not likely to pay $9.99 for an on-demand service.

19   We also saw that noninteractive services and

20 on-demand services are not being used by consumers as

21 close substitutes for each other. In fact, the

22 majority of subscribers to the on-demand services in

23 our sample told us they also used noninteractive

24 services as well.

25   We went on to conclude that very few consumers

1   are telling us that their time spent with

2   noninteractive services are telling us that that time

3   is coming from time they haven't spent with on-demand

4   services and we saw that people -- many people, the

5   majority of people are essentially freaking --

6   seeking, sorry. Seeking free, the -- seeking free

7   services. Excuse me for that.

8   And so that even if all free online services

9   were eliminated, they would likely switch not to a

10 paid service but to some other form of free.

11   JUDGE STRICKLER: Counsel. Question for

12 you, Mr. Rosin. If you look at -- looking at your

13 testimony, I guess, this is the survey questions

14 themselves. If you go to Survey Question 7H, it is

15 on Page 8 of your survey work.

16   THE WITNESS: Yes.

17   JUDGE STRICKLER: I notice that this is

18 the one you actually put in the figure before, and it

19 says: "Think specifically about the time you spend

20 listening to," and it was Pandora in the figure that

21 you showed, right?

22   THE WITNESS: Yes.

23   JUDGE STRICKLER: Then you had shown the

24 list of alternative choices that the survey

25 respondents were provided, correct?

1   THE WITNESS: I'm sorry. I didn't

2 understand.

3   JUDGE STRICKLER: You have several

4 different items that were read to the individuals,

5 what they were doing with their time.

6   THE WITNESS: Exactly.

7   JUDGE STRICKLER: In the other questions,

8 I saw that you rotated the questions with the

9 possible answers, rather, all of them, but on this

10 one, the instruction seems to say rotate Codes 1, 2

11 and 3.

12   Code 4, which was that 46 percent figure,

13 if I remember correctly, the answer, new listening

14 time that is not time taken from other sources of

15 audio listening, that was Code 4, right?

16   THE WITNESS: Yes.

17   JUDGE STRICKLER: Why wasn't that rotated

18 too?

19   THE WITNESS: Well, if you look at 6D,

20 it's structured the same way, where 1, 2 and 3 are

21 shuffled because 4 always comes fourth. Similar to

22 6I, it's using the same pattern as each of those, 7D.

23   JUDGE STRICKLER: Right. So I guess it's

24 my same question for each one. Correct me if I am

25 wrong, but is it proper survey procedure to always

3744

1   rotate potential answers so there is no bias in the

2   order in which the alternatives are provided to the

3   survey respondents?

4   THE WITNESS: In certain cases, that is

5   the case, as well though in terms of structuring

6   questions, there is also -- again, keeping in mind it

7   is a telephone survey, you want to be able to

8   structure it in a way that, you know, this is a

9   challenge for people when they are hearing these

10   options to keep them organized in their head, so this

11   is a question for them that we've used in the past,

12   and we found that pinning would be our term for it,

13   pinning that fourth code at the end increased the

14   comprehension of the question dramatically, so we

15   shuffled the first three but always asked the last

16   one.

17   JUDGE STRICKLER: In survey work, you have

18   a question or a problem with regard to -- I think you

19   alluded to, about people keeping things in their

20   head, it's a retention problem, so if you give people

21   four different choices such as on 7D, which I think

22   is the right one -- or 6D, rather, the one that dealt

23   with Pandora specifically.

24   THE WITNESS: Yes.

25   JUDGE STRICKLER: If you ask people -- and

1 there's a lot of words in those choices.

2   THE WITNESS: Yes.

3   JUDGE STRICKLER: So by the time you get

4 somebody on the line and you give them the fourth

5 choice, don't you have a concern generally in the

6 survey work that they're going to say, oh, yeah, that

7 one, because they don't really have a good

8 recollection of the first three, which is why you

9 rotate among survey respondents so you avoid that

10 particular bias?

11   THE WITNESS: That is certainly a

12 potential concern, yes. There is the known effects

13 of primacy and recency on list-based questions.

14   JUDGE STRICKLER: Were you concerned at

15 all, when you saw 46 percent, answering that they

16 were just new listening time, that that might have

17 been an artifact of not rotating for, rather than

18 revealing that people suddenly discovered more time

19 to listen to music?

20   THE WITNESS: It certainly could be a

21 factor.

22   JUDGE STRICKLER: Thank you.

23   BY MR. MARKS:

24   Q. Are these results on these figures generally

25 consistent with your work and experience in the field

1 of audio research?

2   A.   Yes, especially for telephone surveys.

3   MR. MARKS: I have no further questions.

4   CHIEF JUDGE BARNETT: Mr. Klaus?

5   MR. KLAUS: Yes.

6   CHIEF JUDGE BARNETT: I'm sorry, Mr.

7 Klaus, I just looked at the clock at the urging of

8 one of my colleagues, so we will take our morning

9 recess.

10   MR. KLAUS: That's fine, Your Honor.

11   (A short recess was taken.)

12   CHIEF JUDGE BARNETT: Please be seated.

13 Mr. Klaus.

14   MR. KLAUS: Thank you, Your Honor.

15   CHIEF JUDGE BARNETT: Oh, I'm sorry.   One

16 more thing.   Before you begin, we have noticed that

17 Mr. Malone has not been here this week.   I don't know

18 if you are all in touch by your listserv or whatever

19 the modern term for that is, but I know he had a

20 witness and I don't know where that witness fits in

21 your rotation or if anyone has been in touch with

22 him.

23   MR. LARSON: We have been in touch with

24 him and we don't have a specific slot for his.   I

25 think he has two witnesses, but we are working with

3747

1 him to try to find where that slot will be in the

2 rotation.

3   CHIEF JUDGE BARNETT: Okay. Thank you

4 very much, Mr. Larson.

5   Go ahead, Mr. Klaus.

6   MR. KLAUS: Thank you, Your Honor.

7   CROSS-EXAMINATION BY COUNSEL FOR SOUNDEXCHANGE

8   BY MR. KLAUS:

9   Q. Good morning, Mr. Rosin.

10   A. Good morning.

11   Q. We met briefly in the hallway. My name is

12 Kelly Klaus. I represent SoundExchange.

13   Mr. Rosin, in response to some of the

14 judges' questions referred to the fact that some

15 analyses or slices of the data that you have from

16 your survey could be done by -- by examining that

17 data and running programs on them; is that right?

18   A. Yes.

19   Q. Are those are sometimes called cross tabs?

20   A. As an example, yes.

21   Q. Okay. And you -- as part of the discovery in

22 this proceeding, you produced your data and the

23 programs that you have used to analyze the program,

24 correct?

25   A. Yes.

3748

1   MR. KLAUS: And, Your Honors, we have

2 designated the survey results, the -- the actual data

3 as SoundExchange Exhibit 2284, and the program that

4 Mr. Rosin ran and produced as SoundExchange Exhibit

5 2285. They are not --

6   CHIEF JUDGE BARNETT: Not in the binder?

7   MR. KLAUS: The electronic copies are not

8 in the binder. They've been produced electronically.

9 There are printouts of the data, which I think we

10 would be here for quite some time to go through, but

11 I would -- at this time, I would just move the data

12 and the program of Exhibits 2284 and 2285 into

13 evidence.

14   MR. RICH: One moment, please.

15   MR. MARKS: Your Honor, it's not entirely

16 clear what exactly that he's proposing to move into

17 evidence and how it will be useful to anybody if it's

18 just a piece of software without any attended

19 testimony.

20   MR. KLAUS: Let me just -- why don't I lay

21 some foundation and see what we can do.

22   CHIEF JUDGE BARNETT: Okay.

23   BY MR. KLAUS:

24   Q. Mr. Rosin, can you please turn to Exhibit 13 in

25 your big binder, Tab 13.

3749

1   Are you there?

2   A.   Yes.

3   Q.   And this is incredibly a couple of hundred --

4 several hundred pages of data, lots of numbers, lots

5 of numbers.

6   Does this appear to you to be a printout of

7 your -- the survey results that you had?

8   A.   I have no way of knowing for sure, of course,

9 but it -- I'll accept your assertion that that's what

10 this is.

11   Q.   Okay. And if one looks at your survey

12 instrument, and that's both in your small binder and

13 at Tab 12 of the larger binder, the survey instrument

14 lists numerical codes to be answered next to every

15 response, correct?

16   A.   Yes.

17   Q.   And so the printout of the data would appear to

18 have -- that you see in Exhibit 2281, which is behind

19 Tab 13, this is the format that you would expect the

20 results of your data to -- to appear in if they are

21 printed out, correct?

22   A.   I've never seen it printed out before, so I'll

23 assume that if you hit "print" that's what comes out.

24   Q.   Okay.

25   MR. KLAUS: What I would suggest, Your

3750

1   Honor -- and let me --

2   BY MR. KLAUS:

3   Q. I think you answered this before, but since Mr.

4   Marks has raised a question, if one were to take your

5   data and the programs that you used to run them, both

6   of which were produced, one could, for example, look

7   at some of the questions that the Court was asking

8   you about and do a cross tab and come up with a

9   result, correct?

10   A. Yes.

11   Q. Okay.

12   MR. KLAUS: I would suggest that if Mr. Marks

13 has any question about the authenticity of what we

14 have marked as exhibits -- or what we've designated

15 as Exhibits 2284 and 2285, they could reserve that

16 and check the electronic files this evening. But

17 subject to that, we would -- and verify that they are

18 the programs and the data that were -- that were done

19 by Mr. Rosin. But subject to that, we would move

20 their admission into evidence, Your Honor.

21   JUDGE STRICKLER: Were these received by

22 you in response to a document request?

23   MR. KLAUS: Yes, they were, Your Honor.

24   CHIEF JUDGE BARNETT: Can we confer for

25 just a moment, please?

3751

1   (A short recess was taken.)

2   CHIEF JUDGE BARNETT: Thank you.

3   Please be seated.

4   Could you give me the numbers again, Mr.

5   Klaus?

6   MR. KLAUS: Yes.

7   SoundExchange Exhibit 2284 and

8   SoundExchange Exhibit 2285.

9   CHIEF JUDGE BARNETT: Okay. 2284 and 2285

10   are admitted without prejudice to an objection after

11   Pandora's counsel has had an opportunity to do

12   whatever it is they want to do with all that mass

13   data.

14   MR. KLAUS: Thank you, Your Honor.

15   (SoundExchange Exhibit Nos. 2284 and 2285

16   were admitted into evidence.)

17   BY MR. KLAUS:

18   Q. Mr. Rosin, would you agree, as part of survey

19   design, that an important part of the survey process

20   is the creation of questions that accurately measure

21   the opinions of the public that you are trying to

22   survey?

23   A. That is certainly a goal that one tries to

24   achieve, yes.

25   Q. Would you also agree that the choice of words

1   and phrases and the questions you ask is critical in

2   expressing the meaning and intent of the question?

3   A. Yes.

4   Q. Would you also agree that the choice of words

5   and phrases and the questions that you ask is

6   critical in ensuring the respondents interpret the

7   question the same way?

8   A. Yes.

9   JUDGE STRICKLER: When you say, "interpret

10 the same way," Counsel, do you mean to ask him the

11 same way as each other or the same way as the

12 questioner or someone else?

13   MR. KLAUS: I believe that -- let me ask a

14 followup.

15   BY MR. KLAUS:

16   Q. I meant it to say that the respondents to the

17 survey are all on the same page when they are

18 answering the same question.

19   Is that your understanding of the survey

20 design?

21   A. That's how I took the question, and yes, that's

22 how I answered it.

23   JUDGE STRICKLER: Thank you.

24   BY MR. KLAUS:

25   Q. And would you also agree, as a matter of survey

1 design, that even small wording differences have the

2 potential to substantially affect the answers that

3 people provide?

4   A. Certainly.

5   Q. And would you also agree that the number and

6 choices of response options offered, the order of

7 answer categories can influence how people respond to

8 what are called "closed-ended questions"?

9   A. Yes.

10   Q. And closed-ended questions, examples of those,

11 just so we're all on the same page, are questions

12 like Question Number 10 in your survey or Question

13 Number 7-H. These are questions where the -- I

14 believe you were relaying to the Court there are a

15 number of responses that are provided to the -- to

16 the respondent and the respondent choose -- is asked

17 to choose one, correct?

18   A. Yes.

19   Q. And would you also agree that research has

20 suggested that in telephone surveys respondents more

21 frequently choose items heard later in the list of

22 closed-ended questions?

23   A. I -- I know there's a lot of research into

24 ordering of list items. I'm not sure exactly the way

25 you asked that is exactly correct, that they tend to

1   choose later items in the lists the way you word it,

2   you worded your question.

3   Q.   Let me ask you, if you would, to turn to Tab 19

4   in the big binder.

5   A.   Yes.

6   Q.   And Tab 19 is a printout of the questionnaire

7   design page from the Pew Research Center. And Pew

8   Research Center's survey materials, that's one of the

9   sources that you cited as something you relied on in

10 your testimony, correct?

11   A.   Relied on in --

12   Q.   If you look at your written rebuttal

13 testimony --

14   A.   Oh.

15   Q.   -- right after -- right before the slides and

16 after your signature page, I believe you had a list

17 of exhibits that you had -- or documents you had

18 relied on.

19   Do you see that?

20   It's in that binder right -- you're on -- I can

21 see you've got your signature page. If you flip your

22 signature page you should have --

23   A.   Oh.

24   Q.   I apologize. My apologies. After the pie

25 charts and before the survey.

1   A.   Yes.

2   Q.   Okay.   So you're there?

3   A.   Yes.

4   Q.   And you see you cited the Pew Research Center,

5 correct?

6   A.   Yes.

7   Q.   And the Pew Research Center, just for the

8 record, that's a respected organization in the world

9 of polling, correct?

10   A.   Yes.

11   Q.   If you could turn to the fourth page?

12   A.   Yes.

13   Q.   And do you see at the top it says -- it says

14 0in the first full paragraph, second sentence,

15 "Research suggests that in telephone surveys,

16 respondents more frequently choose items heard later

17 in a list." And that's the quote, "recency effect."

18   Do you see that?

19   A.   Yes.

20   Q.   And is that consistent with your understanding

21 of what research has shown in terms of -- in terms of

22 what people do with respect to the last question

23 asked in closed-ended questions?

24   A.   Yes.

25   Q.   Now, if I could ask you, sir, to -- I'm going

1 to come back to it several times. It's either at Tab

2 12 or if it's easier for you in the small binder that

3 Mr. Marks gave you, you're right there with the

4 instrument, and so I'm going to ask you a few

5 questions about the instrument.

6   MR. KLAUS: For the panel, the survey

7 instrument is at Tab 12. The copy that's in your

8 binder has been designated SoundExchange Exhibit

9 2280, but because Mr. Marks has already moved into

10 evidence Mr. Rosin's complete report, including the

11 instrument, this is already in evidence.

12   CHIEF JUDGE BARNETT: Thank you.

13   BY MR. KLAUS:

14   Q. And if I could ask you, Mr. Rosin, to please

15 turn to Page 9 of the instrument. You have here your

16 -- these are your willingness to pay questions,

17 correct?

18   A. Yes.

19   Q. And your testimony in the demonstratives that

20 you provided this morning provided diagram charts of

21 the weighted results of these questions for two

22 groups of respondents, correct?

23   A. Yes.

24   Q. And this question was asked -- this series of

25 questions, 9-A to 9-C, was asked of all respondents

1   except those who said they subscribe to Spotify

2   premium, correct?

3   A.   Yes.

4   Q.   Now, looking at Figure 6, that was just in

5   your -- if you can look -- again, I'll try to keep

6   this easy for us, Mr. Rosin, to minimize the number

7   of things that you have to reach for. But in the

8   little demonstrative chart, Figure 6 --

9   A.   Yes.

10   Q.   -- you -- is it correct you found that 12

11   percent of people who listened to a noninteractive

12   service, but do not already subscribe to Spotify

13   premium, are either very or somewhat likely to pay

14   for the hypothetical service that you described at

15   the $9.99 price point?

16   A.   Yes.

17   Q.   And those are people -- just so the record is

18   clear, what's shown in Figure 6 are the responses for

19   people who currently listen to noninteractive

20   services, correct?

21   A.   Currently it's defined as those who said they

22   had used it in the week before they were called, yes.

23   Q.   And that would include listeners to Pandora who

24   did not also subscribe to Spotify premium, correct?

25   A.   Correct.

1   Q.   And is it consistent with your understanding,

2   Mr. Rosin, that Pandora has somewhere in the

3   neighborhood of about 80 million active users?

4   A.   That's what I have read in -- in reports.

5   Q.   Okay. And is that your -- is that generally

6   your understanding of the size of their active user

7   base?

8   A.   Active in that case, I believe defined as

9   monthly user base, yes.

10   Q.   Okay. And just so we're clear, about 12

11   percent of just Pandora's active user base, that

12   would be about 9.6 million people, correct?

13   A.   That sounds right, yes.

14   Q.   Okay. And you understand that Spotify

15   currently has fewer subscribers than 9.6 million in

16   the United States; is that right?

17   A.   I don't know exactly how many they have. If

18   you tell me it's fewer, I'll -- I'll accept that.

19   Q.   Do you know one way or the other whether they

20   have more or fewer than 9.6 million subscribers in

21   the United States?

22   A.   I am not aware that I know how many subscribers

23   they have in the United States.

24   Q.   Okay. And then if we flip the page to Figure

25   7, it is correct, then, that you conclude that 30

3759

1   percent of people who listen to a noninteractive

2   service, but do not already subscribe to Spotify

3   premium, they are very or somewhat likely to pay for

4   the hypothetical service you describe at the 4.99

5   level, right?

6   A.   That's what that shows, yes.

7   Q.   If we flip to Figure 8, the number of users of

8   noninteractive services who do not already subscribe

9   to Spotify premium, who are very or somewhat likely

10   to pay for the hypothetical service at the 2.99 price

11   point, that number goes to 42 percent, correct?

12   A.   Yes.

13   Q.   Okay. Now, if I could ask you to turn back to

14   -- we can put the pie charts away for the moment.

15   And if I could ask you, Mr. Rosin, to please turn

16   back to the survey instrument, again, at Page 9. And

17   I would like to ask to -- I want to focus on the

18   description of the hypothetical service that you --

19   that you have used in these questions, 9-A, 9-B, and

20   9-C.

21   You said that the service had the following

22   features. One of them was on-demand access to a

23   music library, correct?

24   A.   Yes.

25   Q.   And you didn't define what you meant by music

1   library, correct?

2   A. That's all it says, on-demand access to music

3   library, correct.

4   Q. You didn't tell respondents how many songs were

5   in the music library?

6   A. Correct.

7   Q. You didn't tell respondents what genres of

8   music were included in the library, correct?

9   A. Correct.

10   Q. You also -- you also told them that the service

11   would allow them to stream entire albums of

12   individual songs that they chose, correct?

13   A. Actually, I think you said "of" and it's

14   "entire albums" or --

15   Q. I'm sorry. You're right.

16   Entire albums or individual songs that they

17   chose, correct?

18   A. Yes.

19   Q. And you also told them that they did not own

20   the music but would have access to it for as long as

21   they were paying for that service, correct?

22   A. Yes.

23   Q. Now, you didn't say anything to respondents

24   about the availability of playlists, correct?

25   A. Correct.

1   Q.   You didn't tell them about the availability of

2   playlists that might be curated by the service,

3   correct?

4   A.   Correct.

5   Q.   You didn't tell them anything about the

6   availability of playlists that might be curated by

7   artists or popular pace makers in music, correct?

8   A.   Correct.

9   Q.   And you're very familiar with the online

10   streaming space and that the services -- that are

11   available, correct?

12   A.   Yes.

13   Q.   That's something you follow pretty closely in

14   your line of work?

15   A.   I certainly try to.

16   Q.   Okay.   And you know that subscription services

17   advertise the availability of playlists in the

18   materials that they market their services to

19   customers, correct?

20   A.   Some do, yes.

21   Q.   Okay.   And you also didn't tell respondents

22   anything about the ability of this service to play

23   on-demand music on mobile, did you?

24   A.   Specifically about mobile, no.

25   Q.   Okay.   And you know that that is -- you know

3762

1   that the subscription services advertise the

2   availability of on-demand mobile listening in their

3   marketing materials, right?

4   A. I'll accept your assertion that they do.

5   Q. Okay. Well, if I could ask just to see if --

6   MR. KLAUS: Mr. Nichols, if you could

7   bring up Demonstrative 1.

8   BY MR. KLAUS:

9   Q. And this is -- this is just taken from the

10   Spotify Website and their listed features comparing

11   Spotify free and Spotify premium.

12   Have you seen -- have you seen this page or

13   something like this page before?

14   A. I saw it in the documents that I was shown

15   relating to this. I haven't seen it in the wild, if

16   you will, before.

17   Q. And do you see that one of the features that's

18   listed here is playing on-demand on mobile?

19   A. The screen is exceptionally hard to read, but I

20   believe that's the first one, yes.

21   Q. Okay. Thank you.

22   And you didn't tell respondents anything about

23   whether they would have the ability in this

24   hypothetical service to listen to music offline, did

25   you?

3763

1   A.   No, correct.

2   Q.   And you know that subscription services in the

3 course of advertising and promoting their products

4 talk about the availability of online listening,

5 correct?

6   A.   The availability of online listening?

7   Q.   Offline listening?

8   A.   Offline listening, some do, yes.

9   Q.   Okay. And you didn't tell respondents anything

10 about whether the service would be free of

11 advertising, correct?

12   A.   Correct.

13   Q.   Okay. And you know that subscription services

14 advertise the availability to listen ad-free as a way

15 to entice people to -- to take a subscription for

16 their service, right?

17   A.   That's one thing people say, yes.

18   Q.   And you didn't tell respondents that the

19 hypothetical service that you described would have

20 unlimited skips, correct?

21   A.   Correct.

22   Q.   And you know that subscription services

23 advertise the availability to make unlimited skips in

24 their marketing materials, right?

25   A.   Some do, yes.

3764

1   Q.   Okay. And you didn't tell respondents anything

2 about the sound quality, the -- the quality of the --

3 of the audio that they would receive, correct?

4   A.   Correct.

5   Q.   And you know that subscription services

6 advertise higher sound quality in their marketing

7 materials, right?

8   A.   Sometimes, yes.

9   Q.   Okay. And you didn't tell respondents to your

10 survey, in describing the hypothetical service,

11 anything about the ability to play music on their

12 home audio devices, did you?

13   A.   Correct.

14   Q.   And that's also something that subscription

15 services advertise in their marketing materials,

16 correct?

17   A.   Yes.

18   Q.   Okay. Now, Questions 9-A and 9-C, which ask

19 about willingness to pay, they confront the

20 respondents with specific dollar amounts, correct?

21   A.   Correct.

22   Q.   Would you agree, Mr. Rosin, that directly

23 asking survey respondents their willingness to pay a

24 specific amount for a product or a service has the

25 risk of serious disadvantages in survey work?

1   A.   No.

2   Q.   Would you agree that directly asking survey

3 respondents their willingness to pay for a specific

4 amount for a product or a service does not reflect

5 the way the consumers faced purchasing decisions in

6 the real world?

7   A.   Inasmuch as they're on a telephone talking to

8 an operator as compared to, say, in a supermarket,

9 making a choice at a supermarket, if you're asking in

10 that sense, obviously, that's different. But I'm --

11 they are very much in the real world when they are

12 taking the survey. So I guess it depends on your

13 definition of the real world.

14   Q.   Well, I'm asking your definition of the real

15 world. Do you think that -- do you -- do you believe

16 that confronting survey respondents with a specific

17 price point is similar to the way that they will

18 confront purchasing decisions and the choices that

19 have to be made in the real world?

20   A.   Obviously, there is a lot that goes into

21 purchase decisions and obviously a survey has

22 limitations in terms of precisely nailing a number,

23 if you will, in terms of how many people will do

24 things, but you use these as directional indications

25 of -- of how people might respond.

3766

1   Q.   Would you agree that survey respondents often

2 overstate their price sensitivity when they're asked

3 directly about their willingness to pay a specific

4 amount for a product or a service?

5   A.   I'm not familiar with specific -- I -- I don't

6 recall specific literature on -- on that.

7   Q.   And asking respondents about their willingness

8 to pay specific dollar amounts, is that something

9 that Edison Research typically does in its online

10 radio surveys?

11   A.   We have asked similar questions in the past,

12 yes.

13   Q.   Okay. Is it something that you've done in any

14 recent versions of the infinite dial reports that you

15 described?

16   A.   I don't recall off the top of my head. We do a

17 lot of surveys and I forget if we have asked the

18 question like this in the past or not.

19   Q.   Okay. I would like to ask you, sir, if you

20 would, to turn to Tab 8 of your bind -- the large

21 binder.

22   JUDGE STRICKLER: Before you do that --

23   MR. KLAUS: Yes?

24   JUDGE STRICKLER: -- let me ask a

25 question.

1   This is -- this is your written rebuttal

2   testimony, so you were rebutting particular testimony

3   and positions that you had read in the direct

4   testimony by SoundExchange's witnesses, correct?

5   THE WITNESS: Yes.

6   JUDGE STRICKLER: In fact, you say that on

7   Page 3 when you discuss your assignment and you say

8   you're responding, quote, "to certain assertions made

9   by certain SoundExchange witnesses in the testimony

10   provided as part of SoundExchange's direct case in

11   this proceeding," closed quote, right?

12   THE WITNESS: Yes.

13   JUDGE STRICKLER: Is one of those

14   witnesses Professor McFadden?

15   THE WITNESS: No.

16   JUDGE STRICKLER: Have you read Professor

17   McFadden testimony?

18   THE WITNESS: No.

19   JUDGE STRICKLER: Are you familiar with

20   the -- with the -- what's known as the conjoint

21   survey or conjoint study?

22   THE WITNESS: I would call it a conjoint

23   analysis, perhaps, but yes.

24   JUDGE STRICKLER: So your testimony was

25   not designed to respond to any conjoint analysis that

3768

1 was submitted by SoundExchange in this proceeding?

2   THE WITNESS: Correct.

3   JUDGE STRICKLER: Thank you.

4   BY MR. KLAUS:

5   Q. Behind Tab 8, there's a document that's marked

6 SoundExchange Exhibit 2276. It's an Arbitron Edison

7 Media Research entitled "Internet 8."

8   Do you see that?

9   A. Yes.

10   Q. And is this a -- is this is a report that

11 you -- you authored in conjunction with Arbitron

12 Webcast services in or around 2002?

13   A. Yes.

14   Q. Okay. And just for curiosity, I'll ask, are

15 the Internet 8, Internet 9, are those the

16 forerunners? Are those part of the same series that

17 ultimately became Infinite Dial?

18   A. Yes.

19   Q. Okay.

20   A. The name changed over time.

21   Q. Got it.

22   MR. KLAUS: We would move the admission of

23 Exhibit 2276, Your Honor.

24   MR. MARKS: Your Honor, we -- we object.

25 We don't have any objection if he wants to use this

1 for impeachment, but this is a document that was not

2 on their exhibit list. They served, last night,

3 their 12th amended exhibit list. This is a document

4 that, I believe, was not in anybody's production. We

5 didn't get it at the agreed-upon deadline for the

6 exchange. So if he wants to use it for impeachment,

7 that's fine, but we don't think it's appropriate for

8 them to be adding so many exhibits at the 25th hour.

9   MR. KLAUS: Your Honor, both sides in this

10 case have added many exhibits to the exhibit list,

11 and if that's going to be the rule that there are no

12 more -- this is a publicly-available document. It's

13 a part of the series that the witness authored.

14   CHIEF JUDGE BARNETT: Would you answer are

15 you intending to introduce this for truth of the

16 matter asserted as a new exhibit or is this for

17 impeachment?

18   MR. KLAUS: I am -- I am, actually, just

19 intending to ask him what his findings were in his

20 prior survey work.

21   CHIEF JUDGE BARNETT: A survey done in

22 2002?

23   MR. KLAUS: That's one, yeah.

24   CHIEF JUDGE BARNETT: Sustained.

25   MR. KLAUS: Okay.

3770

1   BY MR. KLAUS:

2   Q.   So let me ask you this. You said that you had

3 asked willingness to pay questions, correct?

4   A.   In other surveys?

5   Q.   In other surveys?

6   A.   Yes.

7   Q.   And did you ask a willingness to pay question

8 in the document that's been marked as Exhibit 2276?

9   A.   This study from 2002?

10   Q.   Yes.

11   A.   I would have to look. I -- I certainly don't

12 recall.

13   Q.   Okay. If I could ask you, then, to turn, sir,

14 to Page 19?

15   CHIEF JUDGE BARNETT: It's refreshing

16 recollection, Mr. Marks.

17   MR. KLAUS: Thank you, Your Honor.

18   THE WITNESS: Yes.

19   BY MR. KLAUS:

20   Q.   And this was -- one of the questions that was

21 asked is reflected in the top chart here was: "Would

22 you be willing to pay a small fee to listen to

23 content provided by the online station or channel you

24 listen to most?"

25   Do you see that?

3771

1   A.   Yes.

2   Q.   Okay. And you didn't, in this survey, ask a

3 specific dollar amount that someone would be willing

4 to pay, correct?

5   A.   It appears we just said what you just said,

6 would you be willing to pay a small fee.

7   Q.   Okay. And if you would look at Exhibit 227,

8 which is Tab Number 9, so this is SoundExchange

9 Exhibit 2277.

10   MR. KLAUS: Your Honor, we would move the

11 admission of it. I am quite certain that the same

12 objection will be coming from my friend, Mr. Marks,

13 and I would expect the same ruling, as well. But I

14 could use it to refresh recollection here.

15   CHIEF JUDGE BARNETT: You can use it to

16 refresh recollection.

17   MR. KLAUS: Okay.

18   CHIEF JUDGE BARNETT: So -- but you have

19 to have a question to which he does not recall the

20 answer to --

21   MR. KLAUS: Okay.

22   CHIEF JUDGE BARNETT: -- before you can

23 refresh recollection.

24   MR. KLAUS: I will, then. I just wanted

25 to make sure our -- our request to admit it was --

3772

1   that the objection to it was sustained.

2   CHIEF JUDGE BARNETT: As long as the

3   circumstances are the same; it was produced last

4   night and it's from some prior year, presumably,

5   2003.

6   MR. KLAUS: 2002.

7   CHIEF JUDGE BARNETT: Oh, also from 2002?

8   MR. KLAUS: Yes.

9   CHIEF JUDGE BARNETT: Okay.

10   MR. MARKS: Same objection, Your Honor.

11   CHIEF JUDGE BARNETT: Those objections

12   would be sustained.

13   BY MR. KLAUS:

14   Q.   Do you recall, Mr. Rosin, that you did a later

15   version of the -- of what was, at that time, called

16   the Internet survey sometime in 2002?

17   A.   Yeah, I believe we did two studies that year.

18   Q.   Okay. And did you also ask respondents in that

19   survey about their willingness to pay to an online

20   streaming service?

21   A.   I do not recall.

22   Q.   Okay. Then if I could ask if I could direct

23   your attention, then, to Pages 20 and 21. And do you

24   see at the bottom that in that -- that in that survey

25   the question that you asked was the percentage of

3773

1   respondents who were willing to pay a small fee to

2   listen to content provided by an online station or

3   channel listened to the most?

4   A.   Yes.

5   Q.   And is that consistent with your recollection

6   that that survey that you did not ask a specific

7   dollar amount to the respondents?

8   A.   Not in this question. I -- I would have to

9   check if we did elsewhere in the survey.

10   Q.   Okay. But you're not -- you're not recalling

11   anyplace where you asked them in that survey,

12   correct?

13   A.   Correct.

14   Q.   If I could ask you, please, sir, to turn to --

15   back to the survey instrument and --

16   JUDGE FEDER: Which tab?

17   MR. KLAUS: This is Tab 12, Your Honor.

18   JUDGE FEDER: Thank you.

19   MR. KLAUS: My apologies.

20   BY MR. KLAUS:

21   Q.   Do you have it, Mr. Rosin?

22   A.   Yes.

23   Q.   Question -- on the first page, Question A-1,

24   you asked each respondent to report their exact age,

25   correct?

1   A.   Yes.

2   Q.   And if the respondents refused to provide their

3 age, they were asked in Question A-2 to provide their

4 age within a range of years, correct?

5   A.   Yes.

6   Q.   And if the respondents wouldn't provide their

7 age within that range, the survey was terminated for

8 that respondent, correct?

9   A.   Yes.

10   Q.   And your data, your underlying dataset record

11 the specific age range within which each survey

12 respondent falls, correct?

13   A.   The ones who completed the survey?

14   Q.   Yes.

15   A.   Yes.

16   Q.   Okay. Now, the results that you report in your

17 testimony and the figures that you presented, you

18 don't break any of those results apart by age group,

19 do you?

20   A.   In my testimony, no.

21   Q.   Okay. And that's an example -- breaking those

22 apart by age group is one of the things that could be

23 done by somebody running your program against the

24 data to see how they split apart in age groups,

25 correct?

3775

1   A. Yes.

2   Q. Now, you would agree that when you ask

3 questions about the usage of streaming services, the

4 results that you have seen over time tend to show

5 higher usage among people who are in the age range of

6 13 to about 34 than for older groups, correct?

7   A. Yes.

8   Q. Okay. And that's something that -- that --

9 you've tracked those sorts of differences in age

10 groups in your Infinite Dial reports, correct?

11   A. Yes.

12   Q. And you have spoken about that publicly about

13 the significance of the -- the age breakdown and the

14 importance of that -- that consumer base of 13 to

15 34-year-olds, correct?

16   A. Yes.

17   Q. And it's fair to say that for the people who

18 operate online streaming services, the Pandoras, the

19 iHearts, others in the world, that 13 to 34-year-old

20 group, it's your understanding that's a very

21 important group for them, correct?

22   A. I would assume all customers are important to

23 them, but it's -- 13 to 34 is a big percentage of the

24 population and that, obviously, is a sizable

25 percentage of their customer base; so, of course, it

1 is important.

2   Q. And these are the people who -- particularly in

3 the younger ages, they are adopting that way of

4 listening now, correct, as they are coming of age?

5   A. They've been, yes.

6   Q. Okay. And that is -- that group, that 13 to 34

7 group and the people who replace them, that's

8 literally the future of online radio, correct? Fair

9 to say?

10   A. I mostly deal with it today of online radio,

11 but presuming that they're still here tomorrow,

12 they're likely to be the future, as well.

13   Q. Okay. And in your Infinite Dial surveys that

14 you've done previously, you break down rates of usage

15 and other matters by age group, correct?

16   A. Yes.

17   Q. So if we could take a look, for example, at --

18 behind Tab Number 2 in the big binder, this is the --

19 this is your 2011 survey, correct?

20   A. Yes.

21   Q. And, for example -- and this is --

22   MR. KLAUS: Your Honor, we would move the

23 admission of SoundExchange Exhibit 1735.

24   MR. MARKS: No objection.

25   CHIEF JUDGE BARNETT: 1735 is admitted.

1   (SoundExchange Exhibit No. 1735 was

2   admitted into evidence.)

3   BY MR. KLAUS:

4   Q.   And if you look, for example, Mr. Rosin, at

5   Page 25 --

6   A.   Yes.

7   Q.   -- you show that -- you show a breakdown by age

8   splits of Pandora users on a weekly basis, correct?

9   A.   Yes.

10   Q.   And you show that in this that the group

11   between 25 and 34 is the highest with 23 percent

12   usage on a weekly basis followed by 16 percent of 18

13   to 24-year-olds, correct?

14   A.   As of that time in 2011, yes.

15   Q.   Okay. And it's your recollection, sir, that in

16   succeeding Infinite Dial reports, you've continued to

17   present breakdowns of usage by age, correct?

18   A.   Yeah. Honestly, I don't know that we've used

19   all these in every one, but we've certainly looked at

20   things by age groups in succeeding studies.

21   Q.   So, for example, if we could turn to Tab 3 in

22   your binder, which is SoundExchange 2267, and if you

23   could flip to Page 10.

24   A.   (Witness complies.)

25   Yes.

1   Q.   You see, for example, that on Page 10 you've

2 given an age breakdown of monthly online radio

3 listening showing the highest concentration in the 12

4 to 24 group?

5   A.   Yes.

6   Q.   77 percent, correct?

7   A.   Yes.

8   Q.   And, then, if you flip to Page 12, Edison also

9 reported that weekly online radio listening was most

10 heavily concentrated at 69 percent in the 12 to 24

11 age group?

12   A.   Yes.

13   Q.   And, again, this is your most recent Infinite

14 Dial report, correct, 2015?

15   A.   Yes.

16   Q.   Okay.

17   MR. KLAUS: We'd move the admission, Your

18 Honor, of SoundExchange Exhibit 2267.

19   MR. MARKS: No objection, Your Honor.

20   CHIEF JUDGE BARNETT: 2267 is admitted.

21   (SoundExchange Exhibit No. 2267 was

22 admitted into evidence.)

23   BY MR. KLAUS:

24   Q.   And behind Tab Number 4, Mr. Rosin, we have

25 your -- we have what's been marked as SoundExchange

1   Exhibit 2271, which is the Infinite Dial report from

2   2014.

3   Does that appear to you to be a copy of that?

4   A.   Yes.

5   MR. KLAUS: We'd move the admission of

6   that, Your Honor.

7   MR. MARKS: Your Honor, this document is

8   already in evidence as Exhibit Pandora 5289.   It was

9   admitted during the testimony of Dr. Blackburn.

10   MR. KLAUS: My apologies for the

11   oversight, Your Honor.   If it's already in evidence,

12   I won't bother admitting this copy.

13   JUDGE STRICKLER: Do you want to call our

14   attention to any particular page in this document?

15   MR. KLAUS: Yes, I did.

16   BY MR. KLAUS:

17   Q.   Exhibit -- Page 19, Mr. Rosin -- actually, the

18   slide before that is Page 18.   And Page 18 reports

19   the breakdown by age splits of people who listen to

20   various services within the last month.

21   Do you see that?

22   A.   Yes.

23   Q.   And what you found was that among Pandora users

24   55 percent of people age 12 to 24 had listened to

25   Pandora within the last month; is that right?

3780

1   A.   Yes. This is as of 20 -- this is as of 2014,

2 yes.

3   Q.   2014.

4   And if we looked at Tab 20, we would see a

5 similar -- or we would see a split by age group on

6 the week -- the weekly basis, correct, Slide 20?

7   A.   You said Tab 10, Slide 20?

8   Q.   Slide 20. My apologies.

9   A.   Yes.

10   Q.   And if we look, Mr. Rosin, behind Tab 5 --

11   A.   Yes.

12   Q.   -- Exhibit 2273 is your Infinite Dial report

13 for 2012, correct?

14   A.   Yes.

15   MR. KLAUS: We'd move the admission of

16 Exhibit 2273, Your Honor.

17   MR. MARKS: Your Honor, this is not clear

18 how this relates to either his -- seems beyond the

19 scope and it's getting cumulative in terms of what

20 these exhibits relate to. I'm not sure what the

21 purpose is to making them exhibits.

22   CHIEF JUDGE BARNETT: The objection is

23 relevance?

24   MR. MARKS: Yes.

25   CHIEF JUDGE BARNETT: Thank you.

1   Response?

2   MR. KLAUS: Yes. One of the things that

3 was -- one of the things that's been stated in

4 proffering Mr. Rosin as an expert and the foundation

5 for his testimony is what he's done in his previous

6 Infinite Dial reports. And, in fact, in response to

7 one of the Court's questions, one of the things that

8 Mr. Rosin talked about was saying that there were

9 other types of questions with a similar nature that

10 he's asked in his Infinite Dial reports in preceding

11 years. So we think that it's -- it's squarely

12 relevant to his testimony.

13   CHIEF JUDGE BARNETT: Are you going to

14 show us something in this particular document to make

15 it appear relevant to us, or are you going to leave

16 it to us to look through it all and try to determine

17 what you think is relevant?

18   MR. KLAUS: I could ask Your Honor the

19 question -- I could ask Your Honor, once again, the

20 questions about the split and age groups that are

21 reported in these surveys. To save time, it would

22 basically be the same for all of these Infinite Dial

23 reports.

24   JUDGE STRICKLER: And by the same, you

25 mean -- you're referring to the age with the age

1 splits?

2   MR. KLAUS: That's in age, correct.

3   CHIEF JUDGE BARNETT: And why is this not

4 cumulative?

5   MR. KLAUS: It's simply showing that this

6 is some -- it's -- it's showing something that Edison

7 Research has consistently done over the years, is to

8 report by age -- by age groups, Your Honor.

9   CHIEF JUDGE BARNETT: You can probably

10 just ask that question, couldn't you?

11   MR. KLAUS: I would be -- I would be happy

12 to, Your Honor, although I don't see the -- the

13 prejudice to the other side in terms of the document

14 coming in.

15   CHIEF JUDGE BARNETT: It's just

16 cumulative. 2273 is refused.

17   MR. KLAUS: Is -- I'm sorry?

18   CHIEF JUDGE BARNETT: Refused.

19   MR. KLAUS: Okay.

20   BY MR. KLAUS:

21   Q. Is it correct, Mr. Rosin, that you have,

22 through the Infinite Dial reports over the last

23 number of years, done age split reports based on --

24 with questions relating to usage?

25   A. Yes.

1   Q. Okay. Now, you didn't do a similar age range

2 breakout of the responses to Questions 9-A through

3 9-C in your survey, did you?

4   A. It was not part of my -- my documents that I

5 presented today; but, of course, we have that

6 information and can look at that information.

7   Q. And we could look at that information, too, by

8 looking at the data in the program that you produced

9 and see what the age splits are for responses to

10 questions 9-A through 9-C, right?

11   A. Yes.

12   Q. And we could do that, in fact, for any of the

13 questions that you asked, correct?

14   A. Correct.

15   JUDGE STRICKLER: If someone, you or

16 someone else were to look at these results with

17 regard to the age split, how, if at all, would your

18 margin of error and confidence intervals change?

19   You mentioned them on Page 7 of your

20 rebuttal testimony that with regard to the total

21 sample, without -- with the age splits, you have the

22 margin of error within -- quoting now from you, "a 95

23 percent confidence interval for results among the

24 entire sample, which is plus or minimum 2 percent"?

25   THE WITNESS: Correct.

3784

1   JUDGE STRICKLER: First of all, would that

2   differ when you did the subgroup?

3   THE WITNESS: Yeah. Every time you chose

4   a smaller group for analysis, the margin there would

5   increase, but I can't tell you specifically what it

6   would be for any given group. It would have to be

7   calculated.

8   JUDGE STRICKLER: And that particular

9   calculation, as far as you know, is or is not in the

10   underlying data regarding your survey?

11   THE WITNESS: By underlying means --

12   JUDGE STRICKLER: You said you couldn't

13   calculate it. I understand you couldn't calculate it

14   now, sitting here.

15   THE WITNESS: Sure.

16   JUDGE STRICKLER: Was it calculated and

17   included in the data that you provided -- that your

18   clients provided in discovery in this case?

19   THE WITNESS: I do not believe a margin of

20   error calculation was part of what was turned over;

21   but, obviously, it could be calculated.

22   JUDGE STRICKLER: Could it be calculated

23   from the data that was turned over?

24   THE WITNESS: Yes.

25   JUDGE STRICKLER: Okay.

3785

1   BY MR. KLAUS:

2   Q.   Mr. Rosin, I would like to turn to your

3 conclusion, which was stated on the last slide that

4 Mr. Marks showed you, that even if free

5 noninteractive services ceased to exist, few

6 consumers would switch to a paid on-demand service.

7 Most would go to other free options or listen to less

8 music.

9   Do you recall that conclusion?

10   A.   Yes.

11   Q.   And that conclusion derives from the response

12 that respondents gave to Question 10 in your survey,

13 correct?

14   A.   Question 10?

15   Yes, 10.

16   Q.   And that was the final substantive question

17 asked of respondents in the survey, correct?

18   A.   If there was a question about SiriusXM usage

19 after that and then some demographic questions.

20   Q.   Got it. Okay.

21   Be before the SiriusXM question, that was the

22 last substantive question?

23   A.   Yes.

24   Q.   And just a couple of questions on the wording

25 and the -- the choices here. One of the things that

1 you said in the second line, and I understand that

2 this wasn't always the second option that was read to

3 respondents --

4   JUDGE STRICKLER: Which question?

5   MR. KLAUS: Yes, Your Honor.

6   It's Question Number 10 on Page 10 of the

7 survey instrument, which is at Tab 12 of your bind --

8 of the larger binder.

9   JUDGE STRICKLER: Thank you.

10   The question, I'm sorry?

11   MR. KLAUS: 10 at the top of Page 10.

12   JUDGE STRICKLER: Thank you.

13   MR. KLAUS: Yes, of course.

14   BY MR. KLAUS:

15   Q. Are you there at that question, those

16 responses, Mr. Rosin?

17   A. Yes.

18   Q. The second item that's listed here says:

19 "Listen to free FM radio on a traditional radio."

20   Do you see that?

21   A. Yes.

22   Q. Why did you include the word "free" before FM

23 radio and traditional radio in this response?

24   A. I don't recall. I don't recall.

25   Q. Okay. When you previously -- like, for

1 example, Question 7-H, which is at the top of Page 8,

2 you have one of the response categories there and

3 here it appears on the top line. It says:

4 "Traditional over-the-air AM/FM radio stations."

5   Do you see that?

6 A. Yes.

7 Q. And you didn't use the word "free" there, did

8 you?

9 A. Correct.

10 Q. And one -- among the options that you gave

11 respondents in Question Number 10, among the five

12 options that were read to them, they weren't given

13 the option of purchasing new music, right?

14 A. As what they would do instead is purchase new

15 music?

16 Q. Correct?

17 A. Right. The options there are the ones listed.

18 Q. Okay. And you didn't ask them whether one of

19 the things that they would do would be to buy new

20 permanent downloads, did you?

21 A. Correct.

22 Q. You didn't ask them whether they would in a

23 world without any free online service, whether they

24 would buy new CDs, did you?

25 A. We asked if they would listen to -- to their

1 CDs, but not if they would buy new ones, correct.

2   Q.   Okay.   And in the hypothetical world that you

3 have described in Question Number 10, based on your

4 experience and your knowledge about the music

5 industry and people's listening habits, you don't

6 think that consumers are going to stop buying --

7 would stop buying CDs or permanent downloads in a

8 world where there were no free services, do you?

9   A.   Stop buying because there's no free --

10   Q.   Not because.

11   You don't think that in a -- you don't think

12 that in a world in which there are no free online

13 services, consumers would stop buying permanent

14 downloads or CDs, do you?

15   A.   As long as they were available for purchase, I

16 would assume some people would buy them.

17   Q.   And your study, Mr. -- just a couple of final

18 questions, Mr. Rosin.

19   You didn't ask any -- you didn't ask any

20 respondents to consider what they -- what their

21 willingness to do -- what their willingness to pay or

22 what their willingness to subscribe to might be as a

23 result of trying the free or Freemium version of a

24 subscription service like Pandora, did you?

25   A.   Well, yeah.   I'm not sure I understand your

3789

1 question.

2   Q. It's a bad question. Let me ask it again.

3   A. Okay.

4   Q. You didn't give respondents any questions about

5 the likelihood of subscribing to a service as the

6 result of trying the Freemium version of a paid

7 service, correct?

8   A. In the case of Pandora, we did, and I presented

9 that as one of my items. It was -- it was Figure 9.

10 The -- it was presented as a hypothetical that if the

11 free services were eliminated, but I believe that

12 gets to what you're asking about.

13   Q. You didn't ask anybody questions of what they

14 would do with respect to the payment for what is

15 called interact -- what we have -- been referred to

16 here as interactive or on-demand services, did you?

17   A. Correct.

18   Q. And you didn't -- you didn't study what people

19 would do in terms of subscribing to a paid service if

20 they -- if there said to be ad load on their existing

21 service increased, did you?

22   A. Correct.

23   Q. You didn't study what people would do in terms

24 of subscribing to a paid service if there was a cap

25 that was placed on the number of hours that they

3790

1 listened, did you?

2   A. I -- correct, I didn't.

3   Q. Okay. And you didn't study, in any way, what

4 people would do if -- in response to -- strike that.

5   Let me ask a different question. I just want

6 to focus on your bottom line conclusion. On Slide

7 Number -- Figure 10, do you have that pie chart in

8 front of you?

9   A. Yes.

10   Q. And I want to ask, based on your knowledge and

11 experience about the industry, Mr. Rosin, do you

12 actually think that in a world without free Internet

13 radio 58 percent of people who had listened to online

14 streaming services would simply go back to listening

15 to FM terrestrial radio or their existing music

16 collections?

17   A. If you're saying as opposed to 57 or 59, no.

18 If you're saying that most people -- and I'll risk

19 Reverend Spooner visiting me again -- will seek free

20 options, the options are already paid for in one of

21 those two cases, yes, that's -- that is what I

22 believe.

23   Q. You know, you said previously, sir, that users

24 of online radio are getting more habituated to it and

25 it's becoming a more regular part of their lives?

1   A.   I don't recall.

2   Q.   If you look at Tab Number 21 of your binder...

3   A.   One sec.

4   Q.   Sure.

     Are you there, Mr. Rosin?

6   A.   Yes.

7   Q.   And is Tab Number 21 a story that you wrote on

8   or about March 5th, 2015 for radio and Internet news

9   called the "Online Audio Habit"?

10   A.   Yes.

11   Q.   And this is something you wrote after you

12   released the 2015 Infinite Dial survey?

13   A.   Yes.

14   Q.   And do you see that on the second page you

15   wrote, after reporting the growth in monthly and

16   weekly numbers of online streaming listening and the

17   conversion between the two, you wrote there's a

18   significant story here. You said: "Note the numbers

19   in the right most column are growing. Over time, the

20   weekly percentage is getting closer and closer to the

21   monthly number. This means that users of the

22   technology are getting more habituated to it and that

23   it is becoming a more regular part of people's

24   lives."

25   You said that, right?

1   A.   Yes.

2   Q.   And you believe that, right?

3   A.   Yes.

4   Q.   Okay.

5   MR. KLAUS: I have no further questions,

6   Your Honor.

7   JUDGE STRICKLER: Following up on that

8   last question, Counsel in his question made reference

9   to look at it on the screen here. You wrote about

10 the growth of monthly and weekly numbers of streaming

11 and the conversion between the two. And I see in the

12 upper right-hand column on that last page of Tab 21,

13 there's a weekly monthly conversion.

14   What did you mean by conversion on that

15 document?

16   THE WITNESS: In that sentence, I'm simply

17 dividing the weekly number into the monthly number.

18   JUDGE STRICKLER: So it's a conversion of

19 what to what?

20   THE WITNESS: Of what percentage of

21 monthly listeners are weekly listeners.

22   JUDGE STRICKLER: Okay. I see that.

23   Another question for you with regard to

24 Figure 10. And, actually, it's really about the

25 choices that were given. So it is merely talking

1 about if you turn to your cross book binder, Tab 12

2 in that, and it's Question 10, the choices that you

3 gave.

4   THE WITNESS: Yes.

5   JUDGE STRICKLER: The first choice that is

6 listed here is pay a subscription fee every month

7 using on-demand music services.

8   Were you concerned, at all, that when you

9 used the word "every month," that it has sort of an

10 indefinite nature to it and that that said it is that

11 is a ball and chain every month as opposed to

12 changing the wording to paying monthly subscription,

13 cancellable monthly subscription?

14   In other words, do you think it biases the

15 survey in some way by not informing the respondent

16 that they can cancel if they want?

17   THE WITNESS: I'm not sure it's a biased;

18 however, as already discussed, you change -- if you

19 change -- even small changes sometimes in wording can

20 change the results of questions. My sense is

21 changing every month to monthly would not make a big

22 difference if we added cancellable. I don't know

23 that that would necessarily make a big difference,

24 but it probably would have made some difference in

25 it.

1   JUDGE STRICKLER: As I -- I know if I'm

2   joining a gym and they tell me what the monthly fee

3   is one of the questions I will always ask is can I

4   cancel, when can I cancel --

5   THE WITNESS: Sure.

6   JUDGE STRICKLER: -- what's the penalty.

7   So, I mean, telling me there's a monthly fee, I want

8   to know if it's in perpetuity or what my cancellation

9   options are.

10   Do you sometimes -- in your experience,

11   have you ever drafted questions and -- and made

12   certain in a similar type of situation that -- that

13   any type of fee that's proposed as a hypothetical has

14   a cancellation provision attached to it?

15   THE WITNESS: Yeah. I mean, it was

16   certainly implied in the previous question, Question

17   9-A where we said if you look on the third line of

18   the question, "for as long as you're paying for that

19   service." So -- and everyone hearing that question

20   would have already heard this question.

21   So I'm not saying that your assertion that

22   had we added the word "cancellable," it wouldn't

23   possibly have changed the results, but we had

24   already, for instance, in that question, implied the

25   for as long as part, which I think speaks to what

3795

1 you're asking about with regard to cancel --

2 cancellableness [sic] -- to make up a word --

3   JUDGE STRICKLER: Coining phrases?

4   THE WITNESS: Yes.

5   MR. KLAUS: May I ask a follow-up

6 question, Your Honor, on that?

7   CHIEF JUDGE BARNETT: Yes, please.

8   BY MR. KLAUS:

9   Q. Mr. Rosin, you didn't run a pretest or a pilot

10 of this survey, did you?

11   A. We pretested -- many of the questions we've

12 asked in other surveys before so they had already

13 gone through that process. We pretested the couple

14 of questions that were new against people in our

15 office and people that we typically call to ask about

16 their level of comprehension of questions, plus we

17 monitor the beginning of the survey of one or several

18 of our employees listen in as surveys are going on to

19 check for comprehension, and then on top of that we

20 work very closely with our phone room partners and

21 they inform us if there's problems with the survey.

22   MR. KLAUS: May I approach the witness,

23 Your Honor?

24   CHIEF JUDGE BARNETT: You may.

25   BY MR. KLAUS:

3796

1   Q. Mr. Rosin, I have handed you a letter that's

2 dated March 5, 2015. It's from Mr. Larson to one of

3 my colleagues, Jennifer Bryant.

4   And just following up on that, do you see -- we

5 had -- you -- you're aware that we asked for

6 materials from you and Edison as part of the

7 discovery process here, correct?

8   A. Uh-huh.

9   Q. You're aware of that, yes?

10   A. Yes. Sorry.

11   Q. Okay. And if you could turn to Page 2, you'll

12 see that one of the things that we were told by

13 Pandora's counsel in response to their several bullet

14 points that relate to the request relating to you,

15 one of the things that we had asked for were all

16 pilot or pretest materials.

17   Do you see that?

18   A. Yes.

19   Q. And what we were told by Pandora's counsel was

20 there were no pilots or pretests.

21   Do you see that?

22   A. Yes.

23   Q. Was that incorrect information that we were

24 provided?

25   A. Well, there -- the word "materials" probably

3797

1   should have been added -- possibly could have been

2   added to that sentence and -- but we engaged in the

3   activities that I mentioned in my answer to that

4   question. We didn't pilot in the sense of put it in

5   the field for a day with no intention of using that

6   data as an example of a kind of pilot test, and then,

7   you know, evaluate it in that sense.

8   Q.   Did you record anything from the pilot or

9   pretest that you described?

10   A.   Not that I recall.

11   Q.   Do you have any recording of whether we

12   discussed a number of questions and the reason for

13   wording -- the wording of them and the like? For

14   example, that Judge Strickler was asking you about on

15   a monthly basis, nothing that would show whether or

16   not respondents had any level of confusion about the

17   monthly subscription fee and what that would entail

18   or whether it would be cancellable?

19   A.   I don't recall any feedback on that.

20   Q.   Okay.

21   MR. KLAUS: I have no further questions at

22   this time, Your Honor.

23   Thank you.

24   MR. MARKS: Briefly, Your Honor.

25   CHIEF JUDGE BARNETT: Sure.

3798

1   REDIRECT-EXAMINATION BY COUNSEL FOR PANDORA

2   BY MR. MARKS:

3   Q. Let me pick up, Mr. Rosin, where Mr. Klaus left

4 off.

5   In the monitoring of the questions that was

6 done at the beginning of the survey, was any

7 confusion on behalf of survey respondents reported?

8   A. I don't recall any.

9   Q. And in the -- you mentioned that some of the

10 questions had been used in -- in other surveys.

11   Are you aware of any confusion arising out of

12 the questions that had been used in other surveys?

13   A. These would have been past that point, so no.

14 Correct. No.

15   Q. You were asked a question by Judge Strickler

16 about the margin of error for the survey.

17   Do you recall that question?

18   A. Yes.

19   Q. And I believe that you said that you couldn't,

20 off the top of your head, calculate a margin of error

21 for every split or subgroup.

22   Do you recall that?

23   A. Yes.

24   Q. Have you calculated a margin of error for each

25 of the figures in your presentation today?

1   A.   Yes.

2   Q.   And when you go from the largest group, which

3 had the -- reported the 2 percent margin of error

4 reported in your testimony to some of the subgroups

5 that we looked at in the slides, what is the highest

6 margin of error for any of those subgroups?

7   A.   The highest was just over 4 percent.

8   JUDGE STRICKLER: That's listed in the

9 report?

10   The 2 percent I know because I asked it.

11 I looked at it.

12   Is the 4 percent also listed in the

13 report? I don't see it in there.

14   THE WITNESS: Not that I recall.

15   JUDGE STRICKLER: And so you -- you recall

16 that in some of the subgroups where you get the 4 --

17 the 4 percent is the highest margin of error?

18   THE WITNESS: Of any of the ones that are

19 in the packet that you were looking at -- in the

20 demonstrative.

21   JUDGE STRICKLER: In the demonstrative.

22   Did the confidence level stay the same, 95

23 percent?

24   THE WITNESS: Four percent at the same

25 confidence level, yes.

3800

1   BY MR. MARKS:

2   Q.   You were asked by Mr. Klaus some questions

3   about respondents who refused to give their age and

4   then did not complete the -- did not go on to take

5   the survey.

6   Do you recall that?

7   A.   Yes.

8   Q.   In your survey, of respondents who agreed to

9   take the survey, what percentage of respondents who

10 agreed to take the survey and started answering the

11 survey answered all the questions and completed the

12 survey?

13   A.   I know that the number was very, very tiny who

14 failed to complete once they started -- I know the

15 number is 11 out of what would be the 2006 plus the

16 11. I can't calculate that off the top of my head.

17   Q.   Let me rephrase my question so I'm not asking

18 you to do math without a calculator.

19   Of the -- of the total number of people who

20 began the survey, what's the number of people who

21 failed to complete the survey?

22   A.   Eleven.

23   JUDGE STRICKLER: Could somebody begin the

24 survey if they didn't give their age or they don't

25 count in the population, the sample?

1   THE WITNESS: They would -- they wouldn't

2 count. They would be as if they never started.

3   JUDGE STRICKLER: So that's 2006 plus 11

4 doesn't include those who never got started because

5 they said I'm not telling you my age?

6   THE WITNESS: Correct, they would not be

7 in that, but there would be 11 people who somewhere

8 after that hung up for whatever reason and did not

9 finish, and those people are -- even if you run the

10 next to last question and failed to complete, you

11 would not be included in the sample.

12   JUDGE STRICKLER: How many people, when

13 you were trying to do the sampling, refused to give

14 their age right from the get-go?

15   THE WITNESS: I don't know.

16   BY MR. MARKS:

17 Q. And just generally, based on your experience,

18 what are some of the reasons a survey respondent

19 might fail to complete a telephone survey?

20 A. Well, not in this case, but, of course, in many

21 cases it's length of survey. But this was a

22 relatively short survey, so that's probably not the

23 case here. But, of course, there's any number of

24 imaginable reasons. The smoke alarm goes of. You've

25 got a call on the other line. Kids come home from

1 school. Anything you could imagine who we'll

2 sometimes have someone say usually with a regret, not

3 always, I'm sorry, I can't finish. I can't continue.

4   Q. You were asked some questions during Mr.

5 Klaus's cross-examination about your questions that

6 asked people to respond to their willingness to pay

7 for an on-demand service at a particular price point.

8   Do you recall that?

9   A. Yes.

10   Q. In your experience, does asking consumers their

11 willingness to pay for a product at a particular

12 price point have significant predictive power?

13   MR. KLAUS: Objection, Your Honor. Lacks

14 foundation. He hasn't established any -- any record

15 other than this survey of having asked for something

16 at a particular price point.

17   MR. MARKS: Mr. Rosin has been doing

18 consumer surveys for 30 years. He's been qualified

19 as an expert. I'm just asking as a general basis

20 whether or not he thinks it has predictive power to

21 ask the question.

22   CHIEF JUDGE BARNETT: Overruled.

23   BY MR. MARKS:

24   Q. You can answer.

25   A. Yes, of course, it has predictive power. It's

1 not perfect by any means. There's many aspects that

2 go into someone's purchasing decisions, but as a

3 prediction of the size of market, these are tools

4 that are used all the time by many, many people.

5   Q. You testified earlier today that it's a

6 relatively small number -- a relatively small

7 percentage of consumers that make up most of the

8 purchasing or the spend on music.

9   Do you recall that?

10   A. Yes.

11   Q. And then Mr. Klaus asked you a series of

12 questions about pointing out that you didn't ask

13 if -- as one of the options if free noninteractive

14 services went away that you didn't ask whether or not

15 people would start spending more money on CDs.

16   Do you recall that?

17   A. Yes.

18   Q. In your experience, does the failure to have

19 asked about whether or not people would have paid for

20 more CDs, does that affect your conclusion, at all,

21 that in this marketplace it's a relatively small

22 percentage of the population that makes up most of

23 the spending?

24   A. No, it does not change that conclusion.

25   JUDGE STRICKLER: Does your conclusion

1   change if Counsel's question related to spending more

2   on downloads rather than CDs?

3   THE WITNESS: They were -- no. I think --

4   no, it would not change.

5   BY MR. MARKS:

6   Q. And do -- if you had asked questions about

7   increasing the ad load on noninteractive services,

8   would that change your conclusions about the size of

9   the market for a paid subscription service?

10   A. No.

11   Q. And if you had asked -- if you had pointed out

12 in your hypothetical questions that the on-demand

13 service that would be available was also available on

14 mobile, would you expect that would change any of

15 your conclusions?

16   A. No.

17   Q. And if you had asked, as part of that

18 hypothetical, whether there was online or offline

19 listening available, would that have changed any of

20 your conclusions?

21   MR. KLAUS: Object. Object, Your Honor.

22 These are incomplete hypotheticals. Didn't ask the

23 question. He doesn't have the data. I don't know

24 what the foundation is for him to say that this would

25 or would not change his conclusions.

3805

1   MR. MARKS: He has been working in this

2 area and studying in this area for decades. He's

3 asked -- been -- he's been studying it, as Mr. Klaus

4 pointed out, back into the earliest time if not

5 before. He has seen numerous results over time. I'm

6 not asking him to give percentages or specific

7 percentages, but just his understanding of -- and

8 the -- for the general patterns he's observed over

9 time.

10   JUDGE STRICKLER: Well, wouldn't that

11 suggest that he doesn't need to do the surveys

12 because from his experience about the surveys he

13 knows the answers before he even asks the question?

14 This is not Jeopardy.

15   MR. KLAUS: I don't mean to -- I don't

16 mean to suggest that it is, Your Honor.

17   CHIEF JUDGE BARNETT: The objection is

18 sustained.

19   BY MR. MARKS:

20 Q. Mr. Rosin, you were asked some questions

21 earlier during your exam about your survey findings

22 with regard to the number of people who report that

23 the time they spend listening to Pandora or other

24 noninteractive services is coming -- is the result of

25 new listening time as opposed to coming from a

1 different source of music.

2   Do you recall that?

3 A. Yes.

4 Q. Could you tell the panel what developments

5 there had been in the marketplace that you're aware

6 of that facilitate new listening time?

7   MR. KLAUS: Objection, Your Honor. That's

8 beyond the scope of my cross-examination.

9   CHIEF JUDGE BARNETT: Sustained.

10   MR. MARKS: No further questions.

11   CHIEF JUDGE BARNETT: Judge Feder?

12   Thank you. Thank you, Mr. Rosin. You may

13 be excused.

14   We will be in recess until 1:05.

15   (A short recess was taken.)

16   CHIEF JUDGE BARNETT: Please be seated.

17 All except the witness.

18 DOMINIQUE M. HANSSENS,

19 being first duly sworn, to tell the truth, the whole

20 truth and nothing but the truth, testified as

21 follows:

22   CHIEF JUDGE BARNETT: Good afternoon.

23   MS. ABLIN: Good afternoon, Your Honor.

24   DIRECT EXAMINATION BY COUNSEL FOR NAB

25   BY MS. ABLIN:

3807

1   Q.   Good afternoon, Professor Hanssens.

2   A.   Good afternoon.

3   Q.   Where are you employed?

4   CHIEF JUDGE BARNETT: Excuse me.   Let's

5 begin with stating your name and spelling your last

6 name, please.

7   MS. ABLIN: Sure.

8   BY MS. ABLIN:

9   Q.   Could you spell your last name for the record

10 and your first name as well.

11   A.   Sure. My last name is Hanssens,

12 H-A-N-S-S-E-N-S. My first name is Dominique, D-O-I-M

13 -- I'm sorry -- D-O-M-I-N-I-Q-U-E. There we go.

14   Q.   And where are you employed?

15   A.   I'm a professor at the UCLA Anderson School of

16 Management.

17   Q.   And how long have you been there?

18   A.   I've been on that faculty since 1977.

19   Q.   And please describe your educational

20 background.

21   A.   Well, my undergraduate degree from my native

22 country, which is Belgium, which is where I studied

23 economics. And then I went to Purdue University

24 where I got both master's and Ph.D. degrees in

25 management.

3808

1   Q.   And do you focus on any particular areas of

2 research at UCLA?

3   A.   Yes.   Throughout my career, my main focus of

4 research has been on marketing.

5   Q.   Have you received any awards for your teaching

6 or research?

7   A.   Well, on the teaching front, I've been

8 fortunate to have earned a few teaching awards,

9 including a decade award for the faculty at UCLA

10 Anderson.

11   And on the research front, some of my papers, I

12 believe five of them, in marketing have won Best

13 Paper of the Year awards.   And then later in my

14 career I received some lifetime achievement wards,

15 two of them from the American Marketing Association

16 and two of them from the Society for Marketing

17 Science.

18   Q.   Please describe briefly for us your

19 publications.

20   A.   Well, in the course of my career to date, I

21 have written approximately 105 papers.   That would

22 include published articles, mainly marketing

23 journals, books, book chapters, working papers and

24 various reports.

25   Q.   Do you have other experience in the field of

1 marketing outside of your academic work?

2   A. Outside -- strictly outside academia, I've done

3 consulting work in various parts of marketing

4 throughout my career for a variety of organizations.

5 And I have also served as -- as the executive

6 director of the Marketing Science Institute in

7 Cambridge, Massachusetts. And that's a nonprofit

8 organization that focuses on the bridge between

9 marketing academia and marketing practice.

10   Q. Please describe your experience both designing

11 and using consumer surveys.

12   A. Well, consumer surveys have been an integral

13 part of my work throughout my career because I'm very

14 empirically oriented. I look at data a lot. And

15 that -- so I've done numerous surveys, either

16 surveyed -- excuse me -- designed, supervised, used

17 surveys in all three aspects of my career, in other

18 words, in research, in consulting as well as in

19 teaching.

20   Q. And have you previously served as a marketing

21 and consumer survey expert in other cases?

22   A. Yes, I have. And I believe to date I have done

23 approximately 25 cases where I served -- where I did

24 testimony either in deposition or in court or both.

25   And then I've done another 20 or 22 or so cases

3810

1 where I delivered the declaration or the report but

2 which did not lead to subsequent testimony.

3   MS. ABLIN: Your Honors, NAB tenders

4 Professor Hanssens as an expert in marketing,

5 marketing research and consumer surveys.

6   CHIEF JUDGE BARNETT: Professor Hanssens

7 is so qualified.

8   MS. ABLIN: Thank you.

9   BY MS. ABLIN:

10   Q. Professor Hanssens, did you submit written

11 rebuttal testimony in this proceeding?

12   A. Yes, I did.

13   Q. And could you please turn to the first tab in

14 the binder that's in front of you. I believe it's

15 got your name on it.

16   A. Yes.

17   Q. Do you see a document there that is marked as

18 NAB Exhibit 4012?

19   A. I see it.

20   Q. And is NAB Exhibit 4012 a copy of your

21 testimony?

22   A. Yes, it is.

23   Q. And to the best of your knowledge, is your

24 testimony true and accurate?

25   A. Other than a couple of typos in an appendix or

1 so, it is complete, yes.

2   Q. And please turn to the page following your

3 testimony and right before your CV.

4   A. Yes.

5   Q. Is that a declaration bearing your signature?

6   A. Yes, it is.

7   MS. ABLIN: Your Honors, NAB offers NAB

8 Exhibit 4012 into evidence.

9   MS. LEMOINE: No objection, Your Honor.

10   CHIEF JUDGE BARNETT: 4012 is admitted.

11   (NAB Exhibit No. 4012 was admitted into

12 evidence.)

13   BY MS. ABLIN:

14   Q. Now, could you please take out your

15 demonstrative binder and turn to the third page

16 there.

17   A. Yes.

18   Q. Could you describe for us, Professor Hanssens,

19 what you were asked to do in this proceeding.

20   A. Well, in this proceeding I have been asked to

21 both design a survey and implement it and then

22 analyze the results with respect to the relative

23 value assigned to music of listeners to a certain

24 form of radio simulcast.

25   And there is a strict delineation here of the

1 category we're talking about. We're talking about

2 U.S.-based; has to be commercial; and it has to be a

3 simulcast of radio stations that are terrestrial, so

4 AM -- AM or FM; and they have to play music.

5   Q. And how did you decide to complete that

6 assignment?

7   A. I decided to complete that assignment by

8 conducting a survey since what I'm being asked here

9 is a consumer's point of view. So I went directly to

10 a representative sample of consumers of these kinds

11 of services.

12   Q. If you could turn to Page 4 in your

13 demonstrative binder and then tell us a little bit

14 about the headline conclusions that you've reached

15 from doing your survey.

16   A. Yes. At the conclusion of the survey, I

17 produced an estimate of the relative value of music

18 relative to other program elements in --

19 incidentally, from now on I'll use the term "radio

20 simulcast" to refer to that long characterization of

21 a minute ago.

22   So 57 percent of the total value is provided by

23 music. That is the average. There is a 95 percent

24 confidence interval around that average, which brings

25 us in the range of 54 to 60 percent. That's

1 Conclusion No. 1.

2   Therefore, the remaining 43 percent, on

3 average, would be to other programatic elements of

4 these services. And there is a list there of what

5 they include. So we're talking about news, weather,

6 traffic, disc jockeys, local event announcements and

7 so forth.

8   Q. Let's talk a little bit about the design of

9 your survey. And I'll refer you to Page 5 in your

10 demonstrative binder.

11   First, did you have any assistance in designing

12 and implementing your survey?

13   A. Yes, I did. There were three organizations

14 involved here. The first is Cornerstone Research,

15 with whom I've had the most contact and with whom I

16 have worked on numerous cases before.

17   Secondly, because obviously there's a survey

18 here, we went to a professional survey firm, TRG, or

19 Target Research Group. And that is a group that I've

20 had prior experience with. They have a great deal of

21 expertise in conducting surveys.

22   And finally, since the methods that was used --

23 or the medium, I should say, is an Internet panel, we

24 brought in a leading Internet panel data provider by

25 the name of Toluna.

1   Q.   And why did you choose to do an Internet or

2 online survey?

3   A.   Well, There are various reasons for that.

4 First of all, we start from a very, very broad base.

5 Because Toluna, in this case, has a membership base

6 of -- I believe it's about 1.7 million members in the

7 United States. So it's a very broad base to begin

8 with.

9   Secondly, this particular approach allows us,

10 as it says on the slide there, a double-blind design.

11 There is no interviewer involved. So there's no

12 potential bias by the nature or the personality of

13 the interviewer.

14   Of course the survey is double-blind. So when

15 the person is invited to participate, he or she does

16 not know what the ultimate objective of the study is,

17 and the sponsor is never mentioned.

18   There also is very substantive advantages in

19 the data collection itself. Is it very efficient.

20 The data are entered directly, so there's no coding

21 error from another human intervention here. And

22 finally -- and, of course, there's various

23 verification procedures that are possible.

24   And finally, since ultimately we're talking

25 about a segment of online users or a particular set

3815

1 of services that are online, it seemed appropriate to

2 me to use an online medium to survey people about

3 their behaviors and attitudes towards one particular

4 online service.

5   JUDGE FEDER: You said that Toluna has a

6 membership of 1 point something million?

7   THE WITNESS: Yes.

8   JUDGE FEDER: What exactly do you mean by

9 "membership"?

10   THE WITNESS: Yes. Well, it's not

11 membership in the sense that you have to pay. But

12 they have been able to assemble 1.7 million people in

13 the United States that represent the nation

14 demographically; and that, in exchange for some small

15 incentives, are willing to be asked from time to time

16 to participate in an interview -- I'm sorry -- in a

17 survey.

18   They are never forced. It is always

19 voluntary. But because we start with such a large

20 base, we actually get a very, very reasonable

21 response rate.

22   JUDGE FEDER: And this base, are they

23 self-selected, or how do they become part of that

24 group?

25   THE WITNESS: Yes. They are selected by

1 Toluna in this particular case and with particular

2 reference to demographic representation.

3   I do not know for a fact, because Toluna

4 has been around for some time, what the first contact

5 is. It is undoubtedly online because it's an online

6 panel. So they are basically invited, and they are

7 given some attractive incentives to participate.

8 They basically collect points, and then these points

9 can be cashed in for prizes at some point.

10   JUDGE FEDER: Thank you.

11   JUDGE STRICKLER: Another question for

12 you, sir. Good afternoon.

13   THE WITNESS: Good afternoon.

14   JUDGE STRICKLER: You say in Paragraph 17,

15 and you just mentioned in your testimony, that you

16 worked with two other organizations, Target Research

17 Group and Cornerstone Research, to design and conduct

18 an online survey.

19   What was the relative contributions of

20 each, and in what areas did they contribute?

21   THE WITNESS: Yes. Cornerstone is an

22 organization that provides litigation support

23 services in general and that I have used many times

24 in the past, either survey related or not.

25   And a team at Cornerstone was my primary

3817

1   contact. And that is for everything such as the --

2   taking my outlines, helping me to draft, making sure

3   that footnotes are accurate, that kind of support

4   work. That's Cornerstone.

5   TRG has nothing to do with Cornerstone.

6   They are an independent market research firm. I and

7   Cornerstone independently have access to several

8   market research firms. We picked this one because of

9   our high satisfaction with them in the past and

10   because they seem to be particularly good at this

11   type of survey. And of course I've had direct

12   contact with TRG as well. And then TRG uses the

13   panel as input data, the Toluna panel.

14   JUDGE STRICKLER: So you're independent of

15   both of these organizations?

16   THE WITNESS: Oh, that's correct, yeah.

17   Totally independent.

18   JUDGE STRICKLER: Thank you.

19   BY MS. ABLIN:

20   Q. Professor Hanssens, let me direct you to Page 6

21   now with your demonstrative binder.

22   And who was the target population, first of

23   all?

24   A. The target population is described there.

25   We're talking of course about U.S. residents for

3818

1 starters. And we wanted to have individuals who have

2 at least a reasonable familiarity with the service

3 being provided here. And we defined that as

4 listening to a radio simulcast for at least one her

5 per week.

6   We sampled all ages from age 16 on. The 16 is

7 determined by the need for parental consent below 16,

8 which we don't need from 16 on.

9   And prior to designing the survey, I asked for

10 some documentation on prior surveys that would help

11 me understand what are the attributes that people

12 value in the context here we're talking about and so

13 that I was able -- so that I would be able to get

14 some sort of a demographic profile that's relevant

15 here. And that is mentioned there along the typical

16 demographic characteristics.

17   And all of that resulted in an initially much

18 larger sample that, by the time we had put in all the

19 filters, we were down to just under 500 respondents.

20 Q. And what did you do to determine whether

21 respondents qualified for your survey?

22 A. Yes. Well, the first -- it's basically through

23 a set of screening questions that are at the very

24 beginning of the survey.

25   So, for example, I believe approximately -- the

3819

1   details are in the report, but approximately 33,000

2   people were contacted, and just under 6,000, about

3   15 percent or so, responded. So we have a good

4   response rate initially of 15 percent.

5   But then as it turns out, many people --

6   because, see, at this point they don't know what the

7   survey is about, and they actually get disqualified

8   as soon as we ask that question about, "How often do

9   you listen to a radio simulcast?" So we lost a lot

10   of people because they're simply not in that target

11   market. So that's a screener.

12   Then, of course, there are screening questions

13   on the other variables, such as age and other

14   characteristics. People were also screened out if

15   they did not show a good faith effort in the sense

16   that they didn't answer some questions or some

17   answers were nonsensical or that would come up with

18   fake names, et cetera. So the people with very low

19   involvement, I would say.

20   And so those were various, you know, quality

21   controls in such a way that, when we finally have the

22   set of final respondents, that we are comfortable

23   that we have exactly the profile that we're looking

24   for.

25   JUDGE FEDER: Do the ones who are screened

1 out, do they receive the same incentive as those who

2 remain in the survey?

3   THE WITNESS: I'm not a hundred percent

4 sure of that. The -- since that's done very

5 quickly -- because literally the first few questions

6 is thank you very much, and that's it -- I doubt it.

7   But, you see, the incentive mechanism is

8 based upon how long and how complex the survey is.

9 My presumption is that, if somebody doesn't qualify,

10 that there wouldn't be an award. I can't rule out

11 that there was some minimal award. That's possible.

12   BY MS. ABLIN:

13   Q. Professor Hanssens, if you could turn to Page 7

14 of your demonstrative binder.

15   A. Yes.

16   Q. And does this page reflect the question that

17 you designed to fulfill your assignment in this

18 matter?

19   A. Yes. As it says there, this was the key survey

20 question commensurate with what I was being asked to

21 do here. Yes.

22   Q. Okay. And what type of survey did you decide

23 to use to evaluate the question you were looking at?

24   A. Yes. Well, since we need a quantitative

25 answer, we need a percentage, I decided to use a

1 constant sum framework. And just for clarification,

2 constant sum scaling is very common in market

3 research.

4   The method's very simple. You are given a

5 hundred hypothetical points and -- along with some

6 attributes that deliver value. And you are simply

7 asked to allocate points commensurate with how much

8 value you feel you perceive from that attribute.

9   And so it is simple. It is easy to understand.

10 And, of course, in execution of that, you have to be

11 careful about certain things.

12   For example, you know, you can't use too many

13 categories. Very hard for people to determine the

14 difference between let's say 2 percent or 3 percent

15 value. So we keep the number of categories very

16 reasonable. And we make sure that these categories

17 are well understood, that they're simple and that

18 they are meaningful.

19   Q. And why did you choose a constant sum survey as

20 opposed to an alternative survey approach?

21   A. Well, yes. I considered a few alternatives.

22 For example, you could do something along these lines

23 with open-ended questions, just asked by way previous

24 surveys have done, very open-ended. You could also

25 run a conjoint method or conjoint application.

3822

1   But after thinking this through and what the

2 objective was here, I felt that these other methods

3 wouldn't answer the question at hand. And so they're

4 fine methods. But for what we're trying to do here,

5 you really need something along the lines of constant

6 sum.

7   JUDGE STRICKLER: Why did you think a

8 conjoint method would not be appropriate?

9   THE WITNESS: Well, there's a couple of

10 reasons for that. First of all, there are no prices

11 here. We're talking about -- conjoint asks people to

12 make tradeoffs. Many of these tradeoffs involve

13 prices, getting to the notion of willingness to pay.

14 In other words, there are switching costs.

15   There are basically no switching costs

16 here other than maybe pushing one button versus

17 another. And so for that reason, there isn't really

18 the strong notion of tradeoff here that you have in

19 other surveys.

20   Secondly, conjoint would be more complex.

21 It would be more time consuming. And most of all,

22 quite frankly, we're not really asking the people to

23 make choices here because the choices have already

24 been made.

25   We already know that a listener listens at

3823

1   least one hour per week and meets the other hurdle.

2   Now the question is we're not asking that person to

3   make choices; we're just asking that person to

4   reflect on what delivers value.

5   And because that's not really a choice

6   question or a tradeoff question, the constant sum is

7   appropriate.

8   JUDGE STRICKLER: Thank you.

9   BY MS. ABLIN:

10   Q.   Let's talk about the programming -- programatic

11   elements that are reflected in your key question.

12   How did you decide which pragmatic elements to

13   include in this question?

14   A.   Yes.   Well, when I was first contacted and made

15   aware of this possible assignment, I asked for

16   background documentation.   I wanted to see possibly

17   other surveys that have helped me understand what it

18   is about radio simulcast -- and again, the narrow

19   definition that I have here -- that people value.

20   And I got that.   I've seen several prior surveys.   So

21   that gave me kind of a shopping list of attributes.

22   Since I am a simulcast listener myself, I

23   started to pay particular attention to the commercial

24   programs and pay attention to what are they doing,

25   you know, switch from a DJ to a contest or an ad and

1   so forth. So my own paying attention really helped.

2   And then I also saw some documentation from

3   broadcasters who basically wrote about why they offer

4   services other than music. Why do they have disc

5   jockeys, et cetera, and how important is it to them.

6   So from these combined sources, I was able to

7   produce a list that you see there. And again, a

8   major consideration here, it has to be simple. It

9   cannot pass 27 different attributes.

10   So we combined some attributes that are really

11 easily understood. For example, in a news, traffic

12 and weather I think logically belong together. And

13 when he we did the pretest, people didn't have any

14 problems with that. Same thing for the other

15 categories in such a way that we really have only

16 five other than music.

17   And then, of course, because we can never be

18 sure -- or I can never be sure that I have captured

19 all elements, I allowed for an "all other," it says

20 there.

21   And then finally and importantly, if a

22 respondent, even though he or she qualifies, is just

23 simply not comfortable putting these weights down,

24 we're not going to force them. We just say it's okay

25 to not know or to not be sure. And we have a

1   category for that as well.

2   So that's what determines the list.

3   JUDGE STRICKLER: Professor, were

4   individuals permitted to assign the same value to

5   different categories?

6   THE WITNESS: Sure. The only condition

7   was obviously percentages have to be either zero or

8   greater than zero. They have to sum to 100. And

9   when somebody left an entry blank, that was assumed

10   to be zero.

11   But the software is written in such a way

12   that the respondent cannot continue the survey unless

13   the sum of the weights equals exactly 100.

14   JUDGE STRICKLER: Do you have occasion

15   where some of the survey respondents had a value that

16   did not add up to 100?

17   THE WITNESS: In the end, no, because the

18   software wouldn't let them. I cannot rule out that

19   somebody in the process got frustrated that he or she

20   couldn't add to 100 and dropped the survey. And then

21   that would be a nonrespondent. I can't rule that

22   out. But I have no evidence that that was a problem.

23   JUDGE STRICKLER: If someone fills in

24   their values and they came up to 90, did the software

25   instruct them to go back and do it again until they

3826

1 got to a hundred?

2   THE WITNESS: That's exactly right.

3   JUDGE STRICKLER: Okay.

4   BY MS. ABLIN:

5   Q. And looking at your question there, why did you

6 ask respondents specifically about the radio station

7 simulcast that they listened to the most?

8   A. Oh, yes. That indeed was a question we asked

9 just prior to the key question here. And the

10 reason's as follows.

11   While I can't prove this, as a researcher, I

12 have to allow for the possibility that a given

13 individual has more than one set of weights. You may

14 have one type of radio station for which you value

15 one element more versus another.

16   Given that possibility, to ask people to

17 average across radio stations is going produce

18 answers that I think are of lower quality. And the

19 task also becomes mentally more difficult.

20   So we prime the consumer or the respondent

21 instead of, "Just think about your favorite station.

22 We're just going to ask a question about your

23 favorite station." And that makes the task much

24 easier. And I have all reason to believe that that

25 makes the results much more reliable than otherwise.

1   JUDGE STRICKLER: So you didn't ask them

2   to think of their favorite music station; you just

3   asked them to think of their favorite station and

4   then the attributes?

5   THE WITNESS: Yeah. Careful. I have to

6   -- we continuously repeated this because it's a very

7   important point. It's about simulcast radio or radio

8   simulcast of terrestrial AM/FM, it has to be

9   commercial, has to be U.S.-based, and of course you

10 listen to it over the Internet. Oh, and I forgot to

11 say and the station plays music. Okay?

12   That's the very, very specific -- let's

13 say, you know, perimeter of the survey.

14   BY MS. ABLIN:

15   Q. If you could turn to Page 8 now in your

16 demonstrative binder.

17   And in designing your survey questions, the

18 questions themselves, what did you do to ensure that

19 the results you received were reliable?

20   A. Well, what I did -- and as I always do in

21 surveys, or as one should do, there are a number of

22 quality control elements in survey research. And

23 they're described, for example -- described in my

24 report. They come from, among other sources, the

25 Diamond source on the standard reference manual for

1 survey research.

2   And you see some examples there. For example,

3 we know that there sometimes is order bias. Let's

4 say between five alternatives, A, B, C, D, if you

5 always put A before B, you might bias the results.

6 So those orders were randomized.

7   Likewise, very important, never force somebody

8 to answer. Allow the "I don't know" or "I'm not

9 sure" category.

10   Simple language. You know, for example, my

11 report talks about music-formatted station. But we

12 didn't tell the respondent that. We said "stations

13 that play music." Okay. That's simple English. And

14 we kept on repeating that.

15   And of course there is instruction that we're

16 talking about the Internet. I've already talked

17 about the limited number of choices in the constant

18 sum.

19   An importantly, we pretested to make sure that

20 the survey -- that the questions were well

21 understood, that people could answer in a reasonable

22 amount of time; and therefore, quality of the answers

23 will be good.

24   JUDGE STRICKLER: Professor, the first

25 step you took was to make sure the order of answer

3829

1 choices was randomized.

2   Is that always required?

3   THE WITNESS: Well, it is if you have --

4 if you have multiple categories. So it wouldn't be

5 the case for open-ended questions. Because in

6 open-ended you just write in whatever you like.

7 Okay?

8   But if it is a categorical question, such

9 as in this case, you know, music, disc jockey, news,

10 let's say, these three, you really have to randomize

11 them.

12   There is a tendency to bias either in

13 front of maybe the first or the last. And we don't

14 want the results to be dependent on that. So that is

15 good practice, yes.

16   JUDGE STRICKLER: Just follow up for a

17 second.

18   When you say there's a possibility of bias

19 with the constant first or last, what do you mean by

20 that?

21   THE WITNESS: Well, what I mean by that is

22 that -- there's research in psychology for that.

23 First of all, the first element, if it's always the

24 same -- if the same category is always mentioned

25 first, you may -- I'm not saying you will, but you

1 may, as a respondent -- it's called a demand

2 factor -- get the impression that that really is the

3 most important one, okay, because it's put first.

4   JUDGE STRICKLER: What about a choice

5 that's put last?

6   THE WITNESS: Okay. And the last is the

7 so-called recency effect. If you read the page from

8 top to bottom, the last one is the last one you see.

9 And likewise, there is sometimes a bit of a tendency

10 to look at the last because it's the most recent.

11   And we just don't want to have to worry

12 about that. So we randomize.

13   JUDGE STRICKLER: And does that recency

14 effect become more or less of a problem if the survey

15 is online versus oral, telephone.

16   THE WITNESS: Let me think a little bit

17 about this. I would say it is stronger in a

18 telephone interview because you need to memorize. If

19 somebody gives you five categories on the phone, you

20 need to memorize them; whereas, here you can look at

21 the page for as long as you like.

22   So I would expect it to be a worse problem

23 in telephone interview or in in-person interviews.

24   JUDGE STRICKLER: Thank you.

25   BY MS. ABLIN:

3831

1   Q.   Professor Hanssens, one of the slides -- one of

2   the bullets on the slide we're looking at mentions

3   pretesting.

4   Did you change anything in your survey as a

5   result of pretesting that you did?

6   A.   Yes. Okay. So in other words, yes, I

7   understood the question.

8   I -- the pretesting has two parts. The first

9   is a qualitative part where you test the survey

10 qualitatively on people around you. And TRG did

11 that, and Cornerstone did that, and I did that

12 independently.

13   And then we get on the phone, and we say, "Any

14 problems with the questions? Anybody indicate

15 hesitation over meaning, et cetera?" And that's --

16 it's a qualitative part, but it's important. That's

17 step one.

18   Then we go ahead and design the instrument and

19 administer it to some reasonable, you know, pretest

20 sample. And we want to ensure that everything is

21 being answered according to plan within a reasonable

22 amount of time.

23   If I recall correctly, there is one question

24 that we subsequently slightly changed because we

25 could improve the quality of the answer. And that

1 was the question -- I believe it was on "How many

2 hours a week do you listen to your favorite station?"

3 We had previously asked, "How many hours do you

4 listen overall?" And there were few cases where the

5 second number was higher than the first number.

6   So, in order to help people along, in case they

7 had a little memory lapse here, we formulated the

8 second question as a percent. So that fixed it.

9   So the pretest was actually doing exactly what

10 it's supposed to do. It is pointing out potential --

11 admittedly minor, but still potential minor areas

12 that can be improved upon.

13 Q. Please now briefly walk us through the

14 implementation of your survey.

15 A. Okay. Well, the survey was -- most of our work

16 was in January. And we were ready in early February.

17 And it took about a week to get to a sample size that

18 I was comfortable with.

19   And then after that and very quickly after

20 that, there was a validation run, which is done by

21 Toluna. In other words, they contact people to -- on

22 the phone to make sure that they're the ones who

23 completed the survey.

24   And then the rest was all the analysis part,

25 which I have already talked about. So basically the

1 statistical analysis of the constant sum results.

2   Q. And do you believe that your response and

3 completion rates, as well as your sample size, were

4 reliable numbers?

5   A. I'm very happy with these results. I have

6 checked -- well, and I knew that, in fact, ahead of

7 time what to expect. The 15 percent response rate is

8 actually on the high side for this type of survey.

9   As I mentioned, we lost a lot of people

10 because, even though demographically they may be

11 fine, they're just not in the target market for radio

12 simulcast.

13   We had the usual number of people who then,

14 once they found out what it was about, they weren't

15 really interested, so they self-terminated.

16   But the completion rate is over 80 percent.

17 And then -- and I'm really quite happy with that.

18 And, of course, my ultimate sample size of 468 allows

19 me to make meaningful statistical inference.

20   Q. If you'd please take a look at Page 9 in your

21 demonstrative binder.

22   A. Yes.

23   Q. Does this demonstrative depict the results of

24 your survey?

25   A. Yes, it does.

1   Q.   And could you tell us a little bit about those

2 results?

3   A.   Well, there are several numbers on this

4 particular page. And I don't need to review all of

5 them. But let me just focus on the important ones.

6   You see there the one surrounded by red -- in

7 red there's a 57.2, which I've rounded off to 57.

8 That's sort of the key number, if you wish, that I

9 was asked to produce. And I've previously defined

10 what that 57 means.

11   It had a high standard deviation. So in other

12 words, people vary a lot in their individual value

13 assignments to these components. They definitely do.

14   But I am being asked to produce an average

15 here. And in terms of the average, the 57 is a

16 fairly stable number with a confidence interval that,

17 as it says there, is somewhere between 54 and 60.

18   I'm happy to elaborate on the other numbers.

19 They show you the relative weights of the other

20 components, and you see even a few people in the "all

21 other."

22   But on the whole then, the important takeaway

23 is that the nonmusic elements of these kinds of

24 services compose or take about 43 percent of the

25 total value.

1   Q.   And finally, if you could take a look at Page

2 10 of your demonstrative binder.

3   A.   Yes.

4   Q.   And tell us about any -- all of the conclusions

5 that you were able to draw as a result of conducting

6 this survey.

7   A.   Yes. Well, in the first two, of course, I've

8 already said I had a qualitative level. In simulcast

9 radio, as I defined earlier, music is not the only

10 source of value. That's quite clear.

11   Secondly, we have reliable estimates of the

12 magnitude of the value. And it hovers around 57

13 percent with the confidence interval that's stated

14 there. Therefore, the other components take up about

15 43 percent.

16   And finally, music here, which is the 57

17 percent component, had several sort of subcomponents

18 to it. One of them is, of course, the sound

19 recording, what the listener hears.

20   But then of course, you know, one can

21 conceivably assign some value to whoever composed the

22 music. So that's the second component.

23   And then also, since this is radio, somebody

24 else besides the listener decided on what to play.

25 So the selection is another source of value. And, in

1 fact, a lot of these radio listeners, terrestrial and

2 simulcast, talk about how much they enjoy the

3 discovery part of these kinds of services. And there

4 may be other components as well.

5   So all this to say is that, because music has

6 these subcomponents, the 57 percent, when it comes to

7 look at -- looking at sound recordings, that's really

8 the upper limits. The true number is probably

9 somewhere below 57 percent. As I say, there is

10 likely lower than the number reported.

11   MS. ABLIN: Thank you very much, Professor

12 Hanssens.

13   THE WITNESS: Thank you.

14   MS. LEMOINE: Your Honors, I have no

15 binder for you.

16   CHIEF JUDGE BARNETT: Thank you,

17 Ms. LeMoine.

18   MS. LEMOINE: You are welcome. I knew

19 that that would go over well.

20 CROSS-EXAMINATION BY COUNSEL FOR SOUNDEXCHANGE

21   BY MS. LEMOINE:

22 Q. Good afternoon, Mr. Hanssens.

23 A. Good afternoon.

24 Q. Sorry. Dr. Hanssens. Good afternoon.

25   My name is Mindy LeMoine. I'm a lawyer for

3837

1   SoundExchange in this proceeding. I met you right

2   before lunch.

3   A.   Yes.

4   Q.   Nice to see you again.

5   Dr. Hanssens, your survey and your testimony

6   focuses on online listening to simulcast radio

7   stations; is that right?

8   A.   That play music.

9   Q.   Yes.   That play music.

10   And you -- your testimony said you understand,

11   for the purposes of what you're testing, okay, a

12   simulcaster refer to content that's essentially

13   identical whether listened to via a traditional AM/FM

14   receiver or via the Internet; is that right?

15   A.   The content is, that I'm aware of generally,

16   identical, yes.

17   Q.   So that's what you were testing.

18   A.   Correct.

19   Q.   So your testimony -- you don't propose a rate

20   structure for the panel to adopt in this proceeding?

21   A.   I have not been asked to do that.

22   Q.   And you don't propose particular rates for any

23   services in this proceeding?

24   A.   I have not been asked to do that.

25   Q.   So we talked a little about the population that

1 you sought to survey. And let me see if I get all

2 the elements in there.

3   People who listen to U.S.-based, commercial,

4 AM/FM, music-formatted radio stations over the

5 Internet, right?

6   A. Yes.

7   Q. Okay. And you identified the demographics of

8 your population based on the demographics of

9 iHeartRadio listeners, right?

10   A. Well, I wanted to get a comparison base other

11 than the general U.S. population. So I looked into

12 the documentation that I had asked for, and I found a

13 couple of sources that were very helpful. And they

14 both refer to iHeart. Correct. One was done by

15 Sony, and one was done by NPD.

16   Q. Right.

17   But just to be clear, you don't know whether

18 the people in your panel were iHeartRadio listeners,

19 but you used the demographics that you found were

20 attributed to iHeart listeners, correct?

21   A. That is correct.

22   Q. Okay. Now, as to the key question that you

23 identify as the key question in your testimony and

24 that you just went over with Ms. Ablin, you asked

25 about only the one AM/FM station that respondents

1 listened to the most, right?

2   A. Yes.

3   Q. But you did not ask the respondents to identify

4 that station, did you?

5   A. Well, no. In other words, you mean identify it

6 on the dial? No.

7   Q. So if we had that information, we would be able

8 to sort of get a better sense of whether the

9 respondents understood your survey, right?

10   A. I don't see why -- I don't understand why that

11 would be the case.

12   Q. Well, you asked about all of those elements of

13 a particular radio station, right?

14   A. Yes.

15   Q. Commercial, played music.

16   And so, if I had the actual stations that

17 people identified, I could determine whether they fit

18 all those characteristics, correct?

19   A. I'm really not following you. I'm sorry.

20 Because I understand, of course, just prior to the

21 main question, I asked about the favorite question.

22 So at this point, the respondent is focused. And

23 then I just asked about the weights.

24   Whether that's one station or another, at this

25 point the respondent already knows what he or she is

1 referring to. But I don't need to know that.

2   Q. Right.

3   But radio stations are different?

4   A. Well, yes. Their styles are different.

5   Q. So if I knew what those situations were that

6 people were talking about, I could determine and

7 analyze whether they have the same relative mix of

8 music and nonmusic contents, couldn't I?

9   A. Are you talking about on the supply side now?

10 So in other words about whether -- I agree with you

11 that radio stations are different.

12   Are you talking about what -- the relative mix

13 of programming elements that they provide?

14   Q. That's right.

15   A. Okay. Well, I agree with you that there will

16 be differences. But I am not sure why this is

17 relevant here for a very simple reason.

18   If a station produces programming elements that

19 a listener does not like, then that listener will go

20 to another station that he or she does like.

21   And that is the -- and since I'm asked to

22 produce an average, not really -- nobody asked me to

23 do the weights for rock music, for example, or for

24 classical music. I was not asked to do that. I need

25 to produce an average. So as long as I have their

3841

1 favorite station, I'm fine.

2   Q. Okay. So -- but the relative mix of music and

3 nonmusic content in a particular station is important

4 to what you're looking at here, right?

5   A. You are really talking -- I'll make sure that I

6 understand your question. You're really talking

7 about the supply side, what's being offered to the

8 listener, correct?

9   The differences you're referring to refer to

10 the fact that Station A has a different mix than

11 Station B. And my point is -- first of all, you're

12 right. These are different.

13   But because I've already asked somebody to

14 refer to their favor station, and because the

15 question for me is what the -- does the consumer

16 value, not what does the broadcaster value, okay, I

17 don't need to know this.

18   Q. Right.

19   What I'm trying to determine is whether there's

20 a representative sample of radio stations in your

21 sample.

22   We don't know that, do we?

23   A. Well, why would there not be?

24   Q. Well, that's not my question. My question is

25 we don't know that.

1   A.   Well, I didn't test for it.

2   Q.   So you had 468 respondents.

3   A.   Yes.

4   Q.   And we don't assume that they're listening to

5 468 radio stations.

6   A.   We make no assumptions what their favorite

7 stations are.

8   Q.   So, Dr. Hanssens, you tried to draft these

9 questions so they were easy to understand, right?

10   A.   Yes.

11   Q.   All right. You chose particular words and

12 phrases that were important to your questions.

13   A.   Yes.

14   Q.   And you agree that it's important in a survey

15 to ensure that the words are not ambiguous?

16   A.   I agree.

17   Q.   So let me ask you about sort of the beginning

18 of the key question that you asked, Question 5.

19   Your Question 5 reads: "Now we would like to

20 ask you about the value you get from the different

21 features of that station's programming when you

22 listen to that one station over the Internet."

23   A.   Okay. I'm reading a slightly different wording

24 on this handout.

25   Q.   It actually was not included on these slides

1 that Ms. Ablin provided. But if you could look to

2 your actual report.

3   A. The screen shots?

4   Q. Yes. And look to I think Appendix 3, the main

5 questions. We can look there.

6   And if you look at Question 5, it begins and

7 focuses the listener on the one radio station we

8 mentioned, right?

9   A. One second, please. Okay. I -- I don't know.

10 Sorry.

11   Q. Okay. I'm at Tab 3, Page 2, of Appendix 3, the

12 main questions.

13   A. Okay. I'm there now.

14   Q. All right. I'm asking about the second full

15 paragraph there.

16   A. Yes.

17   Q. "Now we would like to ask you about the value

18 you get from the different features of that station's

19 programming when you listen to that one station over

20 the Internet."

21   CHIEF JUDGE BARNETT: Excuse me,

22 Ms. LeMoine.

23   Ms. Ablin, this is marked restricted.

24   Is there anything about this that is

25 confidential?

1   MS. ABLIN: Your Honor, the only thing in

2   this binder that is restricted is, in fact, the

3   iHeart demographic data behind Appendix 2 so anything

4   else is fair game for public discussion.

5   MS. LEMOINE: That is good news. I don't

6   intend to go into the details of that demographic.

7   BY MS. LEMOINE:

8   Q. So what I want to ask you about is that phrase,

9   "the value you get." You don't define anywhere what

10   you mean by the phrase, "the value you get," from

11   these relative features?

12   A. It is plain English and it is not further

13   defined. That's correct.

14   Q. So the respondents' view of the value is what

15   controls?

16   A. It says value and then later it specified that

17   it is relative value. You see that in the next

18   paragraph.

19   Q. But we don't know whether the respondents are

20   all applying the same definition of value, do we?

21   A. Well, okay. There are clearly differences

22   across consumers in value determination, that is why

23   my standard deviations are high, so agreed, but we

24   have two anchor points. Everybody understands what

25   no value means and everybody understands what all of

3845

1 the value means, so I have an anchor at zero and I

2 have an anchor at a hundred, and that is consistent.

3   Furthermore, in the pretests, we tested that

4 very carefully, people are very comfortable with that

5 question. They do understand the difference between

6 the value, let's say, from a contest versus the disc

7 jockey.

8   Q.   Let me ask you about the pretest now that you

9 mentioned that.

10   JUDGE STRICKLER: Before you go on to the

11 pretests, I want to go back a couple of questions,

12 Counsel is requesting.

13   With regard to the question that the --

14 basic key survey question asking the one radio

15 station you listen to most, how does your survey

16 avoid a problem where people may have listened to --

17 who responded, might have disproportionately listened

18 to a certain type of niche radio station, that is to

19 say, maybe you got 90 to be extreme, 90 percent of

20 your survey respondents are sports fans, ardent

21 sports fans and they all listen to WFAN or the

22 equivalent, and therefore they would put a very low

23 value on music because that's the way it works. Is

24 it your randomized sample that avoids that or

25 something else?

1   THE WITNESS: Well, it is first of all, a

2   randomized sample and the fact that we are starting

3   from a broad base of the U.S. population, 1.7

4   million. Secondly, if -- let me take your sports

5   example, if people's liking for sports information is

6   so high that it totally dominates all others, they

7   could easily listen to a sports station, and then

8   they would be disqualified because there is a

9   screener question that asked for the types of

10   stations that they listen to and if the play music

11   station is not in there, then the person is

12   disqualified. So we have a check on that

13   possibility, and other than that, that is sort of,

14   you know, the beauty of randomized sampling that you

15   get all kinds of people in there, and they average to

16   the numbers that I have produced.

17   JUDGE STRICKLER: Thank you.

18   BY MS. LEMOINE:

19   Q. So going back to my previous point, I want you

20   to assume that we have two radio stations. All

21   right?

22   U.S. based commercial radio stations.

23   A. Yes, over the Internet.

24   Q. All right. One plays one song an hour, and one

25   plays ten songs an hour. Now both of those stations

1 play music, right?

2   A. Yes.

3   Q. So what is the relative -- doesn't that differ

4 -- is that different from the user's perspective,

5 not the supply side, but what the user is

6 experiencing?

7   A. Yeah, but you see, you are describing -- I'm

8 going to assume that your two examples are realistic.

9 You are describing the choices that people have

10 across stations. If I am somebody who likes more

11 music, then I will favor that second one, the one

12 with the ten songs per hour. Ten is what you said,

13 right?

14   I think you had one versus ten.

15   Q. Yes.

16   A. And again, I am not asking people to make

17 choices among alternatives. They've already made the

18 choice. We already know that they need to focus on

19 their favorite station, and yes, if that favorite

20 station plays much more music than any other station,

21 but not a hundred percent or we would be in a

22 different category, then that particular consumer

23 would probably answer in that direction. Somebody

24 else will answer in a different direction.

25   The fact that people are different in their

3848

1 valuation doesn't bother me. In fact, it is

2 precisely what I want, because I want to recognize

3 that there are differences across people as there are

4 differences across stations, and free market system

5 produces an opportunity to match up the supply side,

6 what is being offered with consumer's valuation. The

7 only assumption I'm making here is the standard

8 assumption in consumer's choice theory, and that is

9 that people maximize their utility. In other words,

10 people do not deliberately punish themselves, they

11 try to do things that they enjoy.

12   Q. But I have already -- it's important that there

13 is a value implicit in making the choice between the

14 ten song station and the one song station. It is not

15 necessarily reflected in your test.

16   A. Well, but I am not asking questions about the

17 one song station versus the ten song station. Okay.

18 I am taking a large subsample of people and I'm

19 asking them for their valuations and I am reporting

20 on those percentages. And that is what I was asked

21 to do.

22   Q. So the respondents gave an average value of

23 5.6 percent to advertising, correct?

24   A. Yes.

25   Q. And we don't know what kind of value, based on

1 your questions, those respondents believed was

2 attributable to advertising, do we?

3   A. Yes, we do. That is what that 5.6 percent is.

4   Q. 5.6 percent means the entertainment value for

5 advertising?

6   A. Yes, and the information.

7   Q. All of them?

8   A. Sorry, what all of them mean?

9   Q. All of the different meanings of the word value

10 are noticed?

11   A. Yes. Okay. Advertising provides admittedly

12 different type of value then let's say music. And so

13 the total, let's say the one hour program, for a

14 given station, total value is composed of all these

15 different components. I am asking consumers to

16 allocate these points, in the constant sum gain or

17 scale that I designed and I am getting a reasonable

18 representation of that mix, and I do agree with you

19 that it will vary across stations. Of course it

20 will.

21   Q. So we are talking about relative value.

22   A. Yes.

23   Q. But your Question 5 asked for the relative

24 value of a feature -- of the features, but it doesn't

25 address what that value is relative to, does it?

1   A.   Well, okay.   It is relative to the anchor

2   points, zero and a hundred.   That is what constant

3   sum does.   Because consumers find it easy to

4   understand what a hundred percent means.   It means

5   everything, so for example, if I really only value

6   music and nothing else, I will go to an all music

7   station.   Which would not be in my sample here

8   incidentally.

9   But if I value other things, I will allocate my

10   time to whichever station delivers a mix that kind of

11   comports with what I enjoy, and that is what I am

12   capturing.

13   JUDGE STRICKLER: In that regard, I asked

14   you before about whether or not you had people who

15   responded to the survey and had numbers less than a

16   hundred or you said more than a hundred too.   You

17   said they would have been prompted by the software to

18   go back and do it again.   How often did that happen?

19   THE WITNESS: Not very often.   We know

20   that because the response times are very reasonable

21   and people who struggled and took a lot of time were

22   cut off because we didn't allow anybody to take more

23   than 30 minutes to complete a survey.   That is what

24   the pretest helps us with.   People were very

25   comfortable, with a few exceptions which are the I

1 don't knows or I'm not sure, and we have a small

2 number of those.

3   The ones who answered the questions felt

4 comfortable with the answers. We know that from the

5 pretest.

6   JUDGE STRICKLER: You say very few, either

7 at the first cut who participated ended up -- summing

8 up less than a hundred or more than a hundred, can

9 you put any more meat on those bones? Do you know

10 what the percent was that had to go back and retake

11 the test?

12   THE WITNESS: Well, yes. No, I'm afraid I

13 can't get that much detail, but I do know -- I

14 believe we had about 30 people so this is off memory,

15 I'm sorry, who answered I don't know or I'm not sure.

16 You can reasonably assume it's because whatever

17 mechanism they used, it just didn't do the job for

18 them. I don't know if that is because they couldn't

19 add the numbers to a hundred, or if they didn't want

20 to start the exercise to begin with. That, I do not

21 know.

22   JUDGE STRICKLER: Does the fact that most

23 of the respondents did add up to 100 provide you with

24 any opinion as to whether or not they understood what

25 the phrase relative value meant?

1   THE WITNESS: Yes.

2   JUDGE STRICKLER: Could you explain your

3   answer?

4   THE WITNESS: Well, it's because of my

5   anchor points, and because of the evidence from the

6   pretests. When we literally asked if we would give

7   them the task, and they are okay with answering it,

8   the anchor points are important. It's important that

9   people understand there is something on the radio

10 right now that gives me absolutely no value. Zero.

11 In other words, I would just as soon not have it.

12 Okay.

13   And there is another part that gives me a

14 hundred percent of the value meaning I wish this

15 program or this station had only that, whatever that

16 is. And then the rest is in between, so my anchor

17 points are clearly defined, therefore, my value is

18 relative to the anchor points.

19   JUDGE STRICKLER: No disutility -- no

20 negative numbers, but somebody could say Robin Thicke

21 of minus 20.

22   MS. LEMOINE: Who would do that, Your

23 Honor?

24   THE WITNESS: No. We have -- it's not a

25 disutility exercise. It is a utility exercise and

1 incidentally, there is good literature on the notion

2 of consumer value and the notion, for example, some

3 interesting work that was done at MIT that people are

4 actually quite comfortable with relative value, and

5 more comfortable with relative value than with

6 absolute value.

7   MS. LEMOINE: Just a couple more

8 questions.

9   JUDGE FEDER: I have a question. Winding

10 back to the beginning of your presentation, we are

11 talking about U.S. based commercial AM FM music

12 formatted radio stations.

13   THE WITNESS: Over the Internet.

14   JUDGE FEDER: Over the Internet. I think

15 I heard you say in answer to the question a short

16 while ago, that an all music format would not be

17 included in the survey?

18   THE WITNESS: Okay. I have to be -- by

19 the same token, I have to be a little bit careful

20 here. There is a screener question that asked for

21 the types of activities that people used, and let me

22 get the exact wording on that so that I can give you

23 an exact answer to your question. One minute,

24 please.

25   There is a question in Appendix 4 on Page

1 9 that asks which of the following do you personally

2 do in a typical week, and we expect -- we expect --

3 people are allowed to check several categories there,

4 but they have to check the first one which is the

5 segment that we are talking about. In other words,

6 the one that you just summarized.

7   Then we go into these U.S. based AM FM

8 radio stations over the Internet and then we ask,

9 well, what types do you listen to, and what we want

10 there is we want to see -- again, people are allowed

11 to check several categories, that's fine, but they

12 have to check the first one. Let's see what the

13 first one says.

14   Commercial stations that play music and

15 then some examples, either with or without other

16 programming. That is the specific category.

17   So let's say that somebody only listens to

18 NPR and checks only Box 2, even though there is music

19 on NPR, that person will not be in the sample. And

20 by the same token, all news, all talk, all sports, is

21 also a disqualifier.

22   JUDGE FEDER: But all music is not?

23   THE WITNESS: All music, well, presumably

24 with advertising, because it's commercial, would be

25 fine so long as it is originating from terrestrial AM

3855

1 FM stations. That has to be the origin.

2   JUDGE FEDER: Thank you.

3   BY MS. LEMOINE:

4 Q. So Dr. Hanssens, you could have asked -- we

5 don't know anything about -- let me strike that.

6   You did not test respondents whether -- whether

7 and how respondents' relative value estimates

8 affected their behavior with regard to listening, did

9 you?

10 A. Let me think about this for a minute. I was

11 not asked to do that, so no.

12 Q. So we don't know from your tests whether --

13 strike that.

14   You could have asked respondents, for instance,

15 the relative value of these features to their

16 decision to listen or to keep listening?

17 A. Okay. All right. Couple of things. First of

18 all, I have something in the other -- in the reverse

19 order. In other words, before asking the weight

20 question or the value question, I asked several

21 questions about their typical listening behavior.

22   So for example, is it in the morning or in the

23 afternoon, is it in the car or at home, and how many

24 hours per week and so forth, so we have -- and the

25 music guide, so those we have. So first, we

3856

1   established the behavior, okay. Then we asked people

2   to focus and we let them pick freely, no answer --

3   there is no answer that's wrong on their favorite

4   station, the choices have already been made, and then

5   we say, what do you value, but I did not do the

6   reverse which is what you are asking about which is

7   first ask about the value and then ask, what station

8   did you pick.

9   As I mentioned before, this is not a choice

10 exercise. This is a relative value exercise.

11   Q. So we don't know how the relative value ties in

12 to the choices that a consumer would make?

13   A. Well, we do, on the very simple premise that

14 people act in their best interest. If they like rock

15 music, they listen to rock music and not to classical

16 and so forth. So that is a simple assumption we all

17 make in consumer theory, because human behavior

18 theory as well as in economics, that people maximize

19 their utility.

20   Q. We don't know, for example, based on these

21 relative value results, whether someone would decide

22 to listen or not to listen if there were no music at

23 all?

24   A. Let me think about this. So there is no music

25 at all, do you mean anywhere? That is a sad country.

1   Q.   No, I mean the station has no music.

2   A.   Okay. But it is not in the sample. This would

3   be all talk station.

4   Q.   Right. What I am saying is, you don't know

5   based on someone having a valuation of music of 57

6   percent, say, to 43 percent, whether they would

7   decide to listen if that 57 percent was not present

8   on the station?

9   A.   Ah. I don't know for every individual, but I

10 do know about some individuals. In other words, the

11 ones who place a hundred percent -- let's say that

12 the alternative is all talk. The ones who place a

13 hundred percent value on all talk, they will listen.

14 The others that have less than a hundred percent on

15 talk, may or may not.

16   As I said, it is a strange hypothetical because

17 I cannot imagine a world without music.

18   Q.   So how many people in your survey put some

19 value for each element, do you recall?

20   A.   Well, I don't have that exact breakdown,

21 although you and I would have the data so we can

22 determine that, but you see some of that on Page 9

23 with the percentiles. I can explain that if you

24 would like me to.

25   Q.   It is 25 percent, right?

3858

1   A.   The 25 percentile, yes. So for example, let me

2 pick the news category. There are people who

3 definitely place no value at all on news. The 25

4 percentile for music is a valuation of 30. So

5 everybody -- well, maybe not everybody, but the

6 lowest percentile is assigned at least some value to

7 mean. That is not true for the other categories as

8 you see there.

9   JUDGE STRICKLER: Professor, a question

10 just so I understand the ability, the extent to which

11 we can use your analysis. You have basically done a

12 ranking, so it is an ordinal value of utility,

13 ranking the preferences in the first, second, third,

14 fourth, plays like that, given relative weights,

15 correct?

16   THE WITNESS: I did not ask to rank order.

17 It's an interesting question. Remember, that we

18 randomized the ordering? If it had been open-ended,

19 then it could have been rank order, because you may

20 have mentioned the most important thing first, et

21 cetera, but not really, we actually -- we actually

22 want people to assign these values which of course

23 result in a rank ordering, but the question was not a

24 rank ordering question. The question was a relative

25 value question and that is different.

1   JUDGE STRICKLER: Within the zero to

2 100 --

3   THE WITNESS: Correct.

4   JUDGE STRICKLER: More specific ordinal

5 numbers in terms of percentages?

6   THE WITNESS: Yes. Yes. And again, we're

7 talking about scaling properties here, because we

8 have the anchor points zero and 100, we really do

9 have something that is ratio scale data, certainly

10 integral scale data and very close if not perfect to

11 ratio scale data.

12   JUDGE STRICKLER: We don't have these are

13 like -- sort of like difference squares from the way

14 for utility, maybe not exactly that, but you don't

15 have any budget lines going in -- so we don't know

16 how much people would actually pay through your study

17 because that wasn't the purpose of your study, how

18 much people would pay for these values?

19   THE WITNESS: Everything is free radio

20 here, so I don't have any dollars or willingness to

21 pay. So you are right. Yeah.

22   JUDGE STRICKLER: There is a follow-up

23 question to that. I'm not sure there is, maybe not.

24   BY MS. LEMOINE:

25   Q. Just to sort of close the loop on that last

1 line of questions.

2   If a user reflected a 30 percent relative value

3 for music, that doesn't tell you whether that person

4 would continue listening if the station stopped

5 playing music, right?

6   A. I'm thinking a minute. Okay. So if the

7 30 percent music -- now the station stops playing

8 music. And is this in a world with competition or

9 without competition?

10   Q. Assume a world with competition.

11   A. Well, then, the -- that particular listener

12 will get tired of his or her, quote, favorite station

13 and switch to something that has more music.

14   Q. And you know that based on the 30 percent?

15   A. Yes.

16   Q. Okay. So let me ask you about how you

17 reflected the conclusions of your study.

18   So you say that music respondents gave it an

19 average value of 52.7 percent?

20   A. Yes.

21   Q. And the next highest relative value was a

22 relative value of 12.5 percent, right?

23   A. Yes.

24   Q. For news. Then the next was 12.2 percent?

25   A. Averages, yes.

3861

1   Q.   And then local events is 7.2?

2   A.   Agreed.

3   Q.   And advertisement is 5.6?

4   A.   Agreed.

5   Q.   So music was the most important piece of the

6   elements you surveyed, right?

7   A.   It -- as counted as a single category, it has

8   the highest share of value points.

9   Q.   By a sizable margin, right?

10   A.   Well, that depends on if you are contrasting to

11   one other program, I think element, so for example,

12   compared to contests, yes, but compared to all other

13   combined, well, it is 57, 43, so that is not really

14   hugely dominant.

15   Q.   But, in fact, music is nearly five times as

16   valuable as the second -- as anything else you

17   surveyed, any other individual elements?

18   A.   So the next highest is news at 12 and a half,

19   so the value points are a little bit less than four

20   times. I'm sorry. Five times.

21   Q.   But you add the non-music elements together,

22   the six non-music elements you listed?

23   A.   Yes.

24   Q.   And you consider that as a block?

25   A.   Well, it is called non-music.

1   Q.   Right. So you could have asked respondents to

2 rank music and non-music, right? You give a relative

3 value of music and non-music.

4   A.   I'm going to think about this for a minute.

5   Okay. Theoretically I could have done that.

6 In other words, one can ask a question as you just

7 proposed. I would view that as not as good a

8 representation of people's preferences for these

9 programs, for the simple reason that these other

10 categories do exist and that they are just -- news is

11 different from contests, for example.

12   I wanted consumers to be able to -- or

13 respondents to express themselves in that way.

14   Q.   You can also have tested six different things

15 that were relevant to the music category you were

16 looking at and one non-music category, right?

17   A.   Just a second. So is this question that I

18 decomposed music in six parts?

19   Q.   Yes.

20   A.   Can you give me an example of what that might

21 be?

22   Q.   You used it in your report, I think. The

23 composition, the sound recording?

24   A.   Yeah, okay.

25   Q.   The placement. Different elements of the

1 music.

2   A.   Yeah. I actually tried that.

3   Q.   You tried that?

4   A.   Yeah, I tried that.

5   Q.   Okay. And you -- what were the results?

6   A.   Here's what happens. Because of the

7 interesting sound recording, and I think I have

8 previously spoken about at least three of these

9 components, there may be more because you mentioned

10 six, we tried it and people have a hard time. We did

11 it twice.

12   The first time on 12 people and five out of 12

13 say, I can't do that. In other words, it is an

14 additional question that says now think about music.

15 What part of your music value comes from the

16 components. Well, the few answers that we did get do

17 show that there are components with nonzero value.

18   In other words, it is not all composition, it's

19 not all sound recording. There are multiple

20 components. That we know. But five out of 12 had a

21 problem. I immediately stopped that and say, I don't

22 want to appear before this panel here with such

23 results. So we did it again.

24   We reword it, try to make it a little bit

25 easier and this time, we got -- I think we tested the

1   second time on nine people, two out of nine had

2   problems. Say the question is not meaningful to me,

3   I don't know how to answer it.

4   Well, two out of nine is not too bad. Maybe 22

5   percent or so, but I did not want to go forward. It

6   did not meet my quality standards for subcategorizing

7   music and that is why my results are limited to what

8   you see.

9   Q. So what you have done though, is you said, I'm

10 going to give you options, six of which are not about

11 music and one of which is music, and I'm going to ask

12 you to distribute a hundred points based on their

13 relative value.

14   A. Yes.

15   Q. So we are looking at one weight on one side and

16 the cumulative -- the product of six on the other?

17   A. Yes.

18   Q. Does that seem biased to you?

19   A. No. Here is the reason why. The -- it will be

20 problematic if my other categories had been -- I'll

21 call it numerous, like 20 or so, which we could have

22 done. Okay. We want to keep it reasonable and you

23 know reasonable when everybody is okay with it in the

24 pretests. But look carefully at these other

25 categories.

1   There is a real difference between, for

2 example, disc jockeys and news. Those are

3 fundamentally different and therefore, if I lump them

4 together, I am asking people to compare apples and

5 oranges. But because they are different, A, and

6 because they are well understood, B, and because

7 there is not too many of them just five, I am able to

8 get reasonable answers, and as I have said earlier,

9 music -- I don't subcategorize in what type of music,

10 whether it is classical or rock because the user has

11 already made that decision because I have already

12 asked him to pick their favorite station, and in

13 terms of your other question about composition versus

14 sound recording, I tried and as I said, it is, at

15 least within this survey, it was simply too hard to

16 do.

17   Q. So you have asked people whether their favorite

18 station plays music, right?

19   A. Well, go back to the exact wording. Yes.

20   Q. Now does a radio station that plays music, is

21 that the same as a music formatted station in your

22 mind?

23   A. Okay. I realize that my report says music

24 formatted station. It's my understanding that for an

25 expert audience, like the people in this room, that

1   is a term everybody understands. That is why the

2   report uses it, but I never use that term with my

3   audience which I cannot assume are experts. I just

4   said they play music with or without other things.

5   Q.   So one song an hour, ten songs an hour, doesn't

6   matter?

7   A.   Yeah. That's fine.

8   Q.   All right. Let me ask you one last question

9   about your pretest.

10   You asked 12 people whether there were

11   questions that were unclear or hard to answer, right,

12   in your pretest?

13   A.   Okay. I have to be a little bit careful there.

14   As I mentioned, there are different pretest, the big

15   quantitative pretest, which had many more people in

16   it that never saw that question, that question on

17   music decomposition. So that is a separate pretest.

18   It was before we went with the finally selected

19   survey that we did small sample testing on whether

20   all questions were well understood and that is when

21   we discovered the problem with the -- I'm just going

22   to call that the music decomposition question now,

23   but that didn't go any further than a test on 12 and

24   a test on 9.

25   Q.   You just asked them, were any questions unclear

1 to you?

2   A.   I forgot exactly how it was done. It is

3 actually simpler than that. It is giving people the

4 question. This is in person by the way. This is not

5 over the Internet and sitting with them and

6 observing, and people will just simply look at you

7 and say, I don't know how to deal with this. I can't

8 do this in my head.

9   When you hear that several times, you put a

10 stop to it because that just says this is really hard

11 to do. At least within the compounds of this survey.

12   MS. LEMOINE: Right. No further

13 questions.

14   JUDGE STRICKLER: I have a question for

15 you, Professor.

16   On your Demonstrative No. 9, which is your

17 results for the key question.

18   THE WITNESS: Yes.

19   JUDGE STRICKLER: Maybe this was asked and

20 answered and I apologize if I missed it, but the

21 three columns with percentiles, those percentiles

22 represent what?

23   THE WITNESS: The midpoint of 50th percent

24 that is the median. That is the easiest to

25 understand. Of course you understand what the mean

1 is, but if we took 50 percent of the people on the

2 high end and 50 percent on the low end, we would

3 arrive at a weight of 60. So if we take 60 as the

4 answer, then we would be able to say, well, 50

5 percent of the people thought it was higher and 50

6 percent thought it was lower.

7   JUDGE STRICKLER: And then 60 for music,

8 for example?

9   THE WITNESS: Yes, I am using music.

10   JUDGE STRICKLER: As a median.

11   THE WITNESS: It is a median, yeah, and

12 the 25th percent, if you wanted to say, well,

13 three-quarters of the people value at least what in

14 music, and it is at least 30 percent, and therefore,

15 below 30 percent is only a quarter of the people, and

16 interestingly, some of these categories on the 25th

17 percentile are actually zero.

18   JUDGE STRICKLER: So because those are

19 percentiles and median, there is no reason why the

20 bottom all non-music categories combined should total

21 up?

22   THE WITNESS: That's correct.

23   JUDGE STRICKLER: Thank you.

24   REDIRECT EXAMINATION BY COUNSEL FOR NAB

25   BY MS. ABLIN:

3869

1   Q.   Just a couple of questions, Professor Hanssens.

2   Let me direct your attention to Appendix 4,

3   second to last page of the binder in front of you.

4   A.   Page 16?

5   Q.   Yes. So first of all, what was Appendix 4?

6   What is included there?

7   A.   This is a screenshot. It is exactly what

8   people saw on their screen.

9   Q.   And so can you just describe from here what

10   consumers -- particularly looking at the first

11   sentence, what were consumers told when they were

12   asked this Question 5 or key question?

13   A.   Well, it is exactly as it reads there. First

14   of all, it announces the question, it makes sure that

15   you focus on your favorite station, and then once

16   again, it repeats that it has to be Internet and so

17   forth. And then it asks the value question, very

18   simple there. We would like to ask you about the

19   value you get from all these features.

20   And then it says, well, how are you going to do

21   that, where were you going to do that, by assigning a

22   weight, and what sort of a scale do I use? Well, no

23   value at all, it's zero, if all the value is a

24   hundred, and you put the points in between, see that,

25   and then people fill in the numbers.

1   Q.   And when the respondents were asked this

2   question and told to focus on commercial radio

3   stations that play music, were they given any

4   examples of what type of station that would include

5   in this question?

6   A.   The examples are given there, yes. You can

7   read them, pop, country, rock, et cetera.

8   Q.   So again, what were they?

9   A.   Well, I'm reading here. Such as pop, country,

10   rock, urban and Christian music.

11   Q.   Did those all describe music intensive

12   stations?

13   A.   Well, I don't claim to be that they are

14   exhaustive, but they are certainly good examples.

15   Q.   Let me ask that a different way: Do those

16   describe various genres of music?

17   A.   Of course.

18   MS. ABLIN: Okay. Thank you.

19   JUDGE FEDER: Just one quick question.

20   Are Internet-based surveys generally considered as

21   reliable as other survey methods, such as telephone

22   surveys or in-person surveys.

23   THE WITNESS: I would say that that

24   depends largely on the nature of the survey and the

25   objective of the survey.

1   So for example, surveys that rely heavily

2   on people's expertise, for example, surveys, let's

3   say of medical doctors in a certain specialty, where

4   the questions get very technical and the answers are

5   not easily distinguishable from each other because of

6   technical detail, those are best done in person, in a

7   real conversation in other words. Or at least on the

8   telephone.

9   On the other hand, let me call that now

10   relatively simple surveys, where you really draw your

11   inference from the large numbers and from the fact

12   that you need efficiency, and you need absence of

13   coding, if at all possible, Internet works very well.

14   It is -- it has become a medium that virtually

15   everybody in the country has access to.

16   Ten years ago, it might have been a

17   problem because you would have been sampling from an

18   audience that is not representative of the entire

19   U.S. population, but nowadays, with the spread of the

20   Internet, we don't have any problem there.

21   So for that reason, and of course, the

22   digital interface is wonderful because it avoids the

23   kind of errors that you have with paper surveys where

24   people are not sure whether one box was checked

25   versus another box, so those are some reasons why

1 these surveys are considered to be reliable. If they

2 are the right method for the right kind of survey.

3   JUDGE FEDER: Thank you.

4   MS. LEMOINE: No follow up.

5   MS. ABLIN: No, Your Honor.

6   CHIEF JUDGE BARNETT: Thank you,

7 Dr. Hanssens.

8   THE WITNESS: Thank you.

9   CHIEF JUDGE BARNETT: You may be excused.

10   MR. JOSEPH: Your Honors, NAB and Pandora

11 call Dr. Steven Peterson if you are ready for it.

12   CHIEF JUDGE BARNETT: This probably is a

13 good time for us to take -- it is a little early for

14 our recess but let's do that now, give you time to

15 spread binders around.

16   (A short recess was taken.)

17   CHIEF JUDGE BARNETT: Please be seated

18 except for the witness.

19 STEVEN R. PETERSON, Ph.D.,

20 being first duly sworn, to tell the truth, the whole

21 truth and nothing but the truth, testified as

22 follows:

23   DIRECT EXAMINATION BY COUNSEL FOR NAB AND PANDORA

24   BY MR. JOSEPH:

25   Q. Good afternoon, Dr. Peterson.

1   A.   Good afternoon.

2   Q.   Would you please introduce yourself and spell

3 your last name so that we can distinguish you from

4 the first witness that appeared here this morning?

5   A.   Yes. My name is Steven R. Peterson, and the

6 last name is spelled P-E-T-E-R-S-O-N.

7   Q.   Please turn to Appendix A in the binder in

8 front of you which is actually behind Tab NAB Exhibit

9 4013.

10   A.   Yes.

11   Q.   Is that your CV?

12   A.   It is.

13   Q.   Is it still true and correct?

14   A.   Yes, it is.

15   Q.   Could you please briefly describe for the Court

16 your educational background?

17   A.   Yes. I have a bachelor's degree in economics

18 from the University of California at Davis and a

19 Ph.D. in economics from Harvard University.

20   Q.   Your CV says you are an executive vice

21 president at Compass Lexecon.

22   Can you please tell the Court what you do at

23 Compass Lexecon?

24   A.   I'm an economic consultant. I do applied

25 economics research and studies for my clients. This

3874

1 is usually in the realm of litigation, regulation,

2 mergers, competition and antitrust work. I also do

3 class actions analysis, particularly in the antitrust

4 field and in antitrust suits and commercial disputes,

5 I regularly work on damages analysis -- analyses and

6 testify to damages.

7   Q. Have you served as an economic expert before in

8 litigation?

9   A. I have.

10   Q. In how many cases have you served as an

11 economic expert?

12   A. I have filed expert reports in about 18

13 matters.

14   Q. Have you previously served as an expert in

15 matters involving music licensing issues?

16   A. Yes. I recently testified on behalf of the

17 Radio Music License Committee in its litigation

18 against SESAC that involved whether SESAC had market

19 power in the market for the licensing of the

20 performance of musical works. I also recently filed

21 comments in the DOJ proceeding addressing whether or

22 not the consent decrees governing ASCAP and BMI

23 should be modified.

24   MR. JOSEPH: Your Honors, NAB and Pandora

25 offer Dr. Peterson as an expert in applied economics.

1   MR. POMERANTZ: No objection.

2   CHIEF JUDGE BARNETT: Dr. Peterson is so

3   qualified.

4   JUDGE STRICKLER: Can you hold on a

5   second. I just want to get something.

6   BY MR. JOSEPH:

7   Q. Dr. Peterson, did you submit written rebuttal

8   testimony in this proceeding?

9   A. I did.

10   Q. Is the document behind the tab labeled NAB

11 Exhibit 4013 a copy of that testimony?

12   A. Yes, it is.

13   Q. To the best of your knowledge, is the testimony

14 still true and correct?

15   A. Yes, it is.

16   Q. Please take a look at the back of the main

17 document before you get to Tab A.

18   Is that your declaration and signature?

19   A. It is.

20   MR. JOSEPH: Your Honors, we offer NAB

21 Exhibit 4013.

22   MR. POMERANTZ: No objection, Your Honor.

23   CHIEF JUDGE BARNETT: Exhibit 4013 is

24 admitted.

25   (NAB Exhibit No. 4013 was admitted into

3876

1   evidence.)

2   BY MR. JOSEPH:

3   Q.   Dr. Peterson, what was your assignment in this

4   matter?

5   A.   My assignment was to review and analyze

6   Dr. Blackburn's direct testimony with regard to the

7   entry count and survival of Webcasters, and to

8   analyze also his analysis of promotion and

9   cannibalization.

10   Q.   And did you have an assignment with respect to

11   Dr. McFadden?

12   A.   Yes. I reviewed his survey and analysis of

13   that survey, estimating the willingness to pay for

14   the features of music services and evaluated whether

15   or not that information could be used to support

16   Dr. Rubinfeld's interactivity adjustment.

17   Q.   I am going to ask you about some of your

18   conclusions here today, and I will leave the rest for

19   the written rebuttal testimony.

20   Let's talk first about Dr. Blackburn's

21   discussion of Webcaster entry, survival rates and

22   growth.

23   What were your main conclusions concerning

24   Dr. Blackburn's discussion of those issues?

25   A.   Well, first, with regard to entry count,

3877

1 survival and so forth, I don't find that analysis to

2 be informative at all, because what it shows is that

3 there is some entry and that Webcasters that enter

4 survive for some period of time, but that would be

5 the case whether rates -- whether the rates that

6 those Webcasters pay for the performance of sound

7 recordings were set at monopoly levels or were set at

8 competitive levels.

9   So that analysis just doesn't tell us anything

10 informative about the rates that the Webcasters are

11 paying.

12   Q. Do you believe that Dr. Blackburn looked at the

13 right data for his analysis?

14   A. No. Dr. Blackburn looked at all of the

15 Webcasters together in his analysis, but the question

16 that we have is whether there is a difference in

17 performance of Webcasters when they pay different

18 rates, so when we look at Webcasters who are paying

19 rates that are at or near the CRB commercial rate, we

20 actually find different results. Particularly with

21 regard to survival, we find that the Webcasters

22 paying the higher rates survive at a significantly

23 lower rate or fail at a higher rate.

24   Q. And did you reanalyze Dr. Blackburn's data to

25 reach those conclusions?

1   A.   I did.

2   Q.   In response to Dr. Blackburn's claim about

3   Webcaster growth, did you analyze the growth of

4   Webcasting to see how it related to the licensed fee

5   rates being paid by different categories of

6   Webcasters?

7   A.   I did.

8   Q.   Let me ask you to turn to the first

9   demonstrative slide of the two that we handed out

10   this afternoon.

11   Would you please explain this figure to the

12   Court?

13   A.   Yes. This is a figure from my report and what

14   I did in this figure was calculate the payments to

15   SoundExchange that would have been made had rates

16   stayed at the 2007 level. So the changes in the

17   levels of the lines on this chart are related to

18   changes in the number of streams, not to changes in

19   the rates.

20   Q.   And what do you conclude from the results that

21   you see on Figure 5?

22   A.   Well, I mean, to summarize Dr. Blackburn's

23   theory seems to be that rates really don't matter and

24   are not choking off growth, but when we peel back the

25   -- peel the union one layer on his analysis, what we

1   find is that the types of Webcasters that are paying

2   higher rates have substantially less growth than

3   other Webcasters.

4   Q. Let me switch subjects to investment in

5   Webcasting.

6   Do you remember that Dr. Blackburn cites an

7   article claiming that there was $839 million invested

8   in Webcasting and on-demand streaming in 2013?

9   A. I do.

10   Q. Did you review that article?

11   A. I did.

12   Q. What did you find?

13   A. Well, I found that none of that amount of

14   investment was invested in statutory noninteractive

15   Webcasting.

16   JUDGE STRICKLER: Where was it invested?

17   THE WITNESS: Those amounts were invested,

18   I think, in some video, online video, on-demand

19   Webcasting. I'm sorry.

20   And I should also add it was not invested

21   in any of those that paid at commercial rates. So I

22   misspoke. Apologies.

23   JUDGE STRICKLER: In that last regard, you

24   are speaking of distinguishing between

25   noninteractives that paid at the commercial rate

1 versus some other settlement rate?

2   THE WITNESS: That's correct. So let me

3 start over.

4   I found that they didn't pay --that no

5 investments were made in Webcast -- not into

6 statutory Webcasters that pay at the statutory CRB

7 rate.

8   JUDGE STRICKLER: I don't want to jump

9 ahead. Perhaps we will get into that in more detail,

10 but when you say there was more investment made in

11 noninteractives who were paid at the statutory rate

12 compared to those who paid -- who paid at the

13 settlement rate rather than at the statutory rate,

14 assume that the rates -- the statutory rates have

15 expiration dates.

16   THE WITNESS: Yes.

17   JUDGE STRICKLER: And the investments are

18 investments that are anticipated to generate a return

19 over a period of time longer than the statutory

20 period. Would that be a fair statement?

21   THE WITNESS: I think that is a fair

22 statement.

23   JUDGE STRICKLER: So wouldn't a prudent

24 investor not necessarily be concerned solely with the

25 existing rates that might otherwise expire rather

1 soon relative to the time horizon for the return on

2 investment?

3   THE WITNESS: That is a possibility. The

4 analysis is limited to the fact that the investments

5 were made in Webcasters that at the time had

6 preferable lower rates than the CRB rate, or did not

7 pay or into aggregators that did not pay performance

8 rates at all.

9   JUDGE STRICKLER: In your evidence that

10 you rely on and your analysis doesn't say that there

11 was a short time horizon that these investors had

12 with regard to whether their return would be

13 coextensive with the statutory period or the

14 settlement period of the rates.

15   THE WITNESS: That's correct.

16   JUDGE STRICKLER: Thank you.

17   BY MR. JOSEPH:

18   Q. Dr. Peterson, let's turn to your review of

19 Dr. McFadden's data.

20   Have you examined Dr. McFadden's results?

21   A. Yes. We recreated Dr. McFadden's results.

22   Q. Are you offering any critique of Dr. McFadden's

23 analysis?

24   A. Well, I am not offering a critique of his

25 conjoint survey. I understand Dr. Hauser will do

1   that. I accept his results as they come. I also

2   have accepted his hierarchical-based analysis, so my

3   analysis of his work essentially provides some

4   detailed information that flows from his work that he

5   did not present in his testimony.

6   Q. Would you describe that detailed information,

7   please.

8   A. Yes. Dr. McFadden presented the average

9   willingness to pay for -- of his respondents for

10   features of streaming services, and I have prepared

11   some pictures showing the detailed -- showing the

12   distribution of the willingness to pay for different

13   respondents, so basically, he is able to calculate a

14   willingness to pay for each respondent, for each

15   feature, and I provide that detail.

16   Q. So do you have a demonstrative that illustrates

17   what you found concerning that detail and for at

18   least one of the issues Dr. McFadden addressed?

19   A. I do.

20   Q. That, I take it, is the second demonstrative

21   sheet that we've handed out; is that correct?

22   A. Yes, it is.

23   Q. Would you please walk the Court through what is

24   depicted on that second demonstrative slide?

25   A. Yes.

1   JUDGE STRICKLER: Before you do, is this

2 demonstrative a reproduction of something from your

3 written rebuttal testimony?

4   THE WITNESS: Yes, it is. It's Figure 9

5 in my testimony.

6   JUDGE STRICKLER: Thank you.

7   THE WITNESS: So this is one of several

8 histograms in my direct testimony. What this one

9 shows is the willingness to pay for a -- the features

10 in a premium on-demand service relative to the

11 features that you would find in an ad-supported free

12 to the user on-demand streaming service.

13   So the features that are represented here

14 are things like offline listening and a full

15 on-demand service on a mobile phone for example.

16   BY MR. JOSEPH:

17 Q. And what are your key takeaways from this

18 chart?

19 A. Well, first, it's important to recognize since

20 what I've compared the premium service to is

21 something that is free to the user or has a

22 subscription fee of zero. This is the willingness to

23 pay more than zero dollars a month for the premium

24 service, so we can think of this as willingness to

25 pay every month for the premium service.

1   And so there are a few takeaways. First, a

2 premium service typically costs about $10 and what we

3 see is the average willingness to pay is $2.53. So

4 the average willingness to pay is substantially lower

5 than what we see for a standard subscription service,

6 and in fact, if everyone had the average willingness

7 to pay, no one would sign up for a subscription

8 service so that says it's important to look at this

9 distribution as the detailed information that

10 Dr. McFadden testified, to understand how the market

11 is working and those who might be choosing to pay a

12 high price for a subscription service every month.

13   Q. What is the significance of the lines that are

14 below the zero dollar willingness to pay?

15   A. Well, this happens for a number of -- or for

16 all but one of Dr. McFadden's features, and that is,

17 that there is a group, at least some of his

18 respondents have a negative willingness to pay for

19 that feature and here, there is a group of

20 respondents who have a negative willingness to pay of

21 approximately $8 for the features that are included

22 in a premium service but not included in the

23 ad-supported service.

24   JUDGE STRICKLER: On this Figure 9, the Y

25 axis, share represents share of what?

1   THE WITNESS: That would be the share of

2   respondents so if you added up all the lines, they

3   would add up to one, if you added up the heights.

4   BY MR. JOSEPH:

5   Q. Dr. Peterson, can you tell from this chart

6   approximately what percentage of respondents had a

7   willingness to pay for a premium service of less than

8   zero?

9   A. Yes. That is in the table on the right and

10   that is approximately 35 percent have a negative

11   willingness to pay.

12   Q. What do you, as an economist, take from the

13   significant number of people who have a negative

14   willingness to pay for features of a service that you

15   might expect to be desirable?

16   A. Well, since the features that are here would

17   tend to be desirable, one of two things must be true.

18   It could be the case that people have a very low

19   willingness to pay for some of these features and for

20   music services, and so this is a statistical

21   analysis, there are errors and things could be

22   leaking over onto the negative side of the ledger,

23   and that would just be consistent with an overall low

24   willingness to pay.

25   Another possibility could be that people were

1 selecting the free option and Dr. McFadden's survey

2 for some reason that, you know, we don't understand.

3   Q. What does the survey show about how many

4 respondents would be willing to pay the $10 price

5 that I think you identified as the average marker of

6 the typical market price for a premium subscription

7 service?

8   A. Roughly, 17 percent would be willing to pay the

9 $10 monthly service fee based on this comparison of

10 only two services.

11   Q. And what does the qualification of -- based on

12 this comparison of only two services mean?

13   A. Well, out in the marketplace, of course, there

14 are many services and so there could be services or

15 other ways of obtaining music that someone prefers

16 more than the premium subscription service, in which

17 case they would not pay $10 for the premium

18 subscription service.

19   It's possible that someone has a different

20 second choice that they prefer to the ad-supported

21 service here and so the willingness to pay over a

22 different second choice might be less than $10. So

23 this 17 percent here just reflects a comparison

24 between two services and would overstate the number

25 of individuals that would actually choose the $10

3887

1   service.

2   Q. Let's change slightly the focus on

3   Dr. McFadden's data.

4   Have you reviewed Dr. Rubinfeld's use of

5   Dr. McFadden's data?

6   A. I have.

7   Q. Does Dr. McFadden's analysis support

8   Dr. Rubinfeld's interactivity adjustment?

9   A. It does not.

10   Q. Why is that?

11   A. First, Dr. Rubinfeld completes his model by

12   developing the interactivity adjustment which is a

13   ratio of prices. It's the average subscription price

14   for an on-demand services to the average subscription

15   price for a statutory service, and he then references

16   an interactivity adjustment based on the willingness

17   to pay estimates of Dr. McFadden, and indicates -- I

18   think he would use them in the same way, but as we

19   have seen with the histogram, there is not a

20   relationship between average willingness to pay

21   across Dr. McFadden's respondents and prices in the

22   market.

23   So there's -- any comparison -- any similarity

24   between those two things numerically is just

25   happenstance.

3888

1   Q. Do you have anything to say about the

2 relationship between what the retail price measures

3 and what Dr. McFadden's willingness to pay estimates

4 measure in connection with the use of the survey to

5 support Dr. Rubinfeld's analysis?

6   A. Yes. As it turns out, the features that are

7 measured by the prices Dr. Rubinfeld uses are

8 different than the features that are included in

9 Dr. Rubinfeld's analysis of the interactivity

10 adjustment based on estimates of willingness to pay.

11   There are two ways to see that. In the first,

12 when -- let's just take Pandora for example. If

13 someone is going to upgrade from Pandora to Pandora

14 One, one of the features that is offered is improved

15 sound quality. And certainly the subscription price

16 is covering improved sound quality as part of what

17 the new subscriber is paying for.

18   But improved sound quality is not included in

19 Dr. McFadden's study, so it is just absent from the

20 willingness to pay estimate of the interactivity

21 adjustment. Second --

22   JUDGE FEDER: Can I stop you there? Why

23 is that significant?

24   THE WITNESS: Well, because the

25 willingness to pay estimate is based on -- is

1 measuring the value of a different set of features

2 than the prices. Once again, there is not a

3 relationship between the prices and the willingness

4 to pay estimates, and there's -- the interactivity

5 adjustment, based on the two, really shouldn't

6 necessarily be the same. There is no reason to

7 believe they would be the same, so they are the same

8 based on happenstance.

9   One isn't supporting the other because

10 they should be the same for any economic reason.

11   JUDGE STRICKLER: I'm sorry, were you

12 finished?

13   THE WITNESS: Yes.

14   JUDGE STRICKLER: You say they are the

15 same by happenstance. I noticed that you said that

16 in your report. Could an argument be made though

17 that Dr. Rubinfeld has determined his interactivity

18 adjustment a certain way by doing the ratios of

19 subscription prices as relative to the ratio of

20 royalties per play, and Dr. McFadden did it in the

21 conjoint version and one serves as a check upon the

22 other? They are different methods, no doubt, but the

23 fact that they come up to be approximately equal in

24 the neighborhood of 2.0, does that suggest sort of --

25 if you will, for lack of a better phrase, a sanity

1 check of one on the other?

2   THE WITNESS: No, I don't think so,

3 because there is no reason they should be the same

4 when they are not even measuring the same thing, and

5 Dr. Rubinfeld doesn't give us any theory of how we

6 would close out his model, if you will, using a ratio

7 of willingness to pay estimates for the two types of

8 services.

9   I mean, it's different. It's just

10 different than the assumption that he talks about as

11 the way he is going to complete his model. So he

12 does have a number of 2.0 but -- or near 2.0, but

13 that is all he has. Unless that number should come

14 out to 2.0 if the ratio of prices and the ratio of

15 estimates of willingness to pay would come -- should

16 be the same, then they can't really be a check on

17 each other.

18   They are measuring -- willingness to pay

19 is not related to prices necessarily or in any

20 general way, and the two methods are measuring the

21 values of different sets of features.

22   JUDGE STRICKLER: Is there any

23 relationship in your opinion between the fact that

24 willingness to pay I think was for 17 -- the $10 or

25 more in your histogram was reflected 17 percent of

1 the market as you pointed out or 17 percent of the

2 respondents?

3   THE WITNESS: Of the respondents, yes.

4   JUDGE STRICKLER: Of the respondents. And

5 the fact that -- does that fact, the fact that -- let

6 me try this again.

7   To me, willingness to pay is $2.53 and

8 yet, the market price is $10. Is there any

9 reflection of market power in that difference or can

10 you not glean that from this data? The difference

11 between $10 and 2.53.

12   THE WITNESS: I would say that what it

13 suggests is that there is price discrimination going

14 on with regard to the pricing of the subscription

15 on-demand services, in that they are targeted at a

16 set of individuals with a willingness to pay, that is

17 much higher than average.

18   JUDGE STRICKLER: That begs the question,

19 to me anyway, if it's price discrimination as of now,

20 we had our discussion right now, it involves one

21 price, the $10 a month price, so where is the price

22 discrimination? Where is the other price or other

23 prices in the discriminatory process?

24   THE WITNESS: I mean, there are different

25 prices for different licenses. I think you make a

1 good point. That is probably better off to say that

2 it's less price discrimination than the -- the price

3 is set to maximize profits for a group of individuals

4 that are at the top end of the distribution of

5 willingness to pay, and so these are people who

6 appear not to want to use pirate services and are

7 quite unusual in the distribution of willingness to

8 pay, and so what we can say is that the license fees

9 and the -- ultimately, then the prices of the

10 services, you know, is not driven to the same level

11 as what is pointed to as competition, which would be

12 pirate services and other services.

13   JUDGE STRICKLER: Thank you.

14   BY MR. JOSEPH:

15 Q. Dr. Peterson, just one last question: Do you

16 understand Dr. McFadden's study to serve any purpose

17 in this proceeding, other that as an input into

18 Dr. Rubinfeld's secondary approach for calculating

19 his interactivity adjustment?

20 A. I'm not aware of any other use for it.

21   MR. JOSEPH: I have no further questions.

22   MR. POMERANTZ: Your Honor, I have three

23 subjects to cover with Dr. Peterson and I've

24 reordered them, so the first two are public and the

25 last one is not.

3893

1   CHIEF JUDGE BARNETT: Thank you.

2   CROSS-EXAMINATION BY COUNSEL FOR SOUNDEXCHANGE

3   BY MR. POMERANTZ:

4   Q. Good afternoon, Dr. Peterson.

5   A. Good afternoon.

6   Q. You understand that the current statutory rate

7 for commercial Webcasters is 23 cents?

8   A. Yes.

9   Q. I am using 23 cents in the way that we have

10 been using it in this proceeding.

11   A. I should say per 100 or --

12   Q. But you understand, what I mean 23 cents, that

13 I am including all the zeros in that?

14   A. Yes.

15   Q. All right. You understand that the current

16 rate for broadcasters under the NAB settlement is 25

17 cents, correct?

18   A. I do.

19   Q. And you are not here to offer an opinion as to

20 whether either of these rates is competitive or not

21 competitive, right?

22   A. I'm not.

23   Q. So let's look at what we do know about the

24 number of Webcasters that are competing in the

25 market.

1   Let's do, as you suggest, let's limit our

2   discussion today to just those commercial Webcasters

3   who are paying at or near the current statutory

4   rates. Okay?

5   A. Okay.

6   Q. Is it fair to say that what we do know from the

7   available data is that there is more than a thousand

8   Webcasters that are today paying at or near the

9   statutory rates?

10   A. I believe that is correct, yes.

11   Q. Is it fair to assume that each of these

12 Webcasters is in the market because it believes it

13 can make a profit in the market?

14   A. Well, I don't know that they believe they are

15 going to make a profit going forward from where they

16 are today.

17   Q. Well --

18   JUDGE STRICKLER: Just so I understand the

19 back and forth on this question. You set it up by

20 asking about the 23 cents for the statutory rate and

21 then the 25 cents for the NAB settlement, correct?

22   MR. POMERANTZ: Correct.

23   JUDGE STRICKLER: The thousand Webcasters

24 includes the simulcasters in that question?

25   MR. POMERANTZ: Correct, Your Honor.

1   BY MR. POMERANTZ:

2   Q.   Is that how you understood it?

3   A.   It is.

4   Q.   What you are saying is that your belief is that

5 each of these commercial Webcasters, including the

6 simulcasters, when they entered the market, they

7 thought they were going to make a profit in the

8 market, correct?

9   A.   I would agree with that. Basic economic

10 principle, sure.

11   Q.   They were aware of whatever the then current

12 statutory rate was when they entered the market,

13 correct?

14   A.   Yes, presumably so.

15   Q.   So at that rate, they thought they could make a

16 profit, correct?

17   A.   That's correct.

18   Q.   And there is over a thousand of them still in

19 the market today, correct?

20   A.   Yes.

21   Q.   Now you criticize Dr. Blackburn for comparing

22 the survival rates of Webcasters to the survival

23 rates in other industries, correct?

24   A.   I do.

25   Q.   You believe that comparing Webcaster survival

1 rates to the survival rates of other industries

2 doesn't provide us with any meaningful insights,

3 correct?

4   A. That's right. There's no reason that a

5 simulcast -- a radio station starting a simulcast

6 distribution mode should necessarily -- that we

7 should observe the simulcast having a lifetime that

8 is similar to new businesses that are being born

9 necessarily, for example.

10   Q. In other industries?

11   A. And in other industries, that is right, with

12 different risks and rewards.

13   Q. Are you aware that the NAB has another expert

14 in this case named David Pakman?

15   A. I believe I have heard the name. I haven't

16 read his testimony.

17   Q. So is it not something you read or reviewed

18 before you submitted your rebuttal testimony,

19 correct?

20   A. It is not.

21   Q. Are you aware that Mr. Pakman expresses views

22 in his testimony that compares the survival rates for

23 Webcasters with the survival rates of other

24 industries?

25   MR. EGIN: Objection, Your Honor. The

1 witness just testified he has not read the testimony.

2 Mr. Pomerantz is reading pieces of the testimony.

3   MR. POMERANTZ: I'll withdraw the

4 question.

5   BY MR. POMERANTZ:

6   Q. If Mr. Pakman testified that he thinks it's

7 reasonable to compare the survival rates of

8 Webcasters to the survival rates of an entity --

9 let's say, entities in the mobile communication

10 industry, you would disagree with that comparison,

11 correct?

12   A. Yeah. My opinion is that, in fact, there would

13 need to be an analysis to support that, certainly.

14   Q. Then you, in your report, you recalculate the

15 survival rate that Dr. Blackburn calculated in order

16 to look at only those Webcasters that are paying at

17 or near the statutory rates, correct?

18   A. Yes.

19   Q. But you don't have an opinion as to whether

20 your adjusted figures are or are not consistent with

21 effective competition, correct?

22   A. I have not reached a conclusion. In fact, my

23 point is simply that Dr. Blackburn seems to say that

24 rates don't matter. That is a demonstration that

25 rates do matter to the calculations he made, but the

1   fact that I have made that adjustment doesn't tell us

2   any more about the rates.

3   It's still an uninformative analysis with

4   regard to whether the rates for performance licenses

5   are at a competitive or above competitive level.

6   Q. So just to be clear, you do not have an opinion

7   as to whether your adjusted rates for survival are or

8   are not consistent with effective competition,

9   correct?

10   JUDGE STRICKLER: The rates, you're

11   talking about the survival rates?

12   MR. POMERANTZ: The survival rates in

13   Figure 1 of his report. If you want to --

14   JUDGE STRICKLER: I just wanted to make

15   sure you are talking about survival rates.

16   MR. POMERANTZ: Yes. That is what we're

17   talking about.

18   THE WITNESS: Yes. Well, it's true for my

19   rates, it's true for his rates. I mean, they are

20   calculated using the same methods, and my testimony

21   is that those are -- that is an uninformative

22   analysis. The point of my Figure 1 is to demonstrate

23   that rates do matter to the performance of Webcasters

24   and Dr. Blackburn suggested that that is not the

25   case, so that figure is really there for a different

1 point.

2   BY MR. POMERANTZ:

3   Q. Then a few minutes ago, Mr. Joseph and Judge

4 Strickler were asking you questions about investments

5 in noninteractive services.

6   Do you recall that?

7   A. Yes.

8   Q. The point of your written testimony on that

9 subject was simply to look at an article that

10 Dr. Blackburn had cited and to show, in your view,

11 that it was not supporting what he said, correct?

12   A. That's correct.

13   Q. So you were just looking at one article, right?

14   A. I was responding precisely to what he had said,

15 yes.

16   Q. So you are not saying that there hasn't been an

17 significant investment in noninteractive services in

18 recent years, correct?

19   A. We have to talk about significance. There has

20 been investment across all noninteractive services.

21 That article didn't describe any in the categories

22 where, you know, the rates tend to be higher.

23   Q. For example, iHeartRadio pays at or near the

24 statutory rates, correct?

25   A. Yes.

1   Q.   And they've been investing in their

2 noninteractive services, correct?

3   A.   Presumably so.

4   Q.   You are aware that Google bought a

5 noninteractive service called Songza, correct?

6   A.   They did.

7   Q.   You are aware that Apple has been investing in

8 its iTunes Radio service, correct?

9   A.   It started it, yes. I don't know what the

10 current investments are.

11   Q.   That is a noninteractive service as well,

12 correct?

13   A.   It is.

14   Q.   Let's move to the conjoint in your discussions

15 regarding Dr. McFadden and Dr. Rubinfeld.

16   You agree that the results of a conjoint study

17 are frequently reported as an average willingness to

18 pay, correct?

19   A.   Yeah. I don't think Dr. McFadden made a

20 mistake by reporting that. I am just saying that his

21 analysis provides more information than that, and

22 that is interesting in and of itself and was relevant

23 to my analysis of whether his analysis could support

24 Dr. Rubinfeld's calculation of an interactivity

25 adjustment.

1   Q.   So it's fair to say that it's very common for

2 people who work with conjoint studies to report their

3 work through using average willingness to pay,

4 correct?

5   A.   I know that that's done, certainly.

6   Q.   You are not an expert in conjoint studies,

7 correct?

8   A.   I am not a certified expert, no.

9   Q.   But you have never conducted a conjoint study

10 before or reported its results, correct?

11   A.   That's right.

12   Q.   And you have never used a conjoint study as

13 part of your work as an economist, correct?

14   A.   Not a conjoint study, no.

15   Q.   Now in running the experiment, Dr. McFadden

16 used a sample, correct?

17   A.   Well, he had a set of respondents. Is that

18 what you mean by sample?

19   Q.   Yes.

20   A.   Yes.

21   Q.   And he estimated the willingness to pay for

22 each respondent in the sample, correct?

23   A.   That's correct.

24   Q.   And he estimated -- and then he calculated --

25 strike that.

1   Then he estimated an average willingness to

2 pay, correct?

3   A. That's correct.

4   Q. And he calculated the standard error for this

5 average, correct?

6   A. Yes. Based on -- if I recall, the individual

7 willingness to pay or something like that.

8   Q. All right. You looked at the individual

9 estimates for each respondent to the survey, correct?

10   A. That's right.

11   Q. But you did not calculate the standard error

12 for each of those individual estimates, correct?

13   A. I have not, no. I have the mean estimate.

14   Q. I'm going to now turn to the third subject of

15 your testimony that Mr. Joseph did not ask you about,

16 which is the promotion and substitution issues that

17 you addressed in your written testimony.

18   MR. POMERANTZ: I am probably going to be

19 moving into a couple of confidential documents at

20 this point, Your Honor.

21   CHIEF JUDGE BARNETT: Anyone in the

22 hearing room who has not signed a nondisclosure

23 certificate, please wait outside.

24   (THIS ENDS PUBLIC SESSION)

25   (RESTRICTED SESSION BOUND SEPARATELY)

3903

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3917

```
 1              (THIS BEGINS PUBLIC SESSION)

 2              MR. JOSEPH:  We are getting our next

 3  witness, Your Honor.

 4              CHIEF JUDGE BARNETT:  Before you are

 5  seated please raise your right hand.

 6  ROMAN WEIL,

 7  being first duly sworn, to tell the truth, the whole

 8  truth and nothing but the truth, testified as

 9  follows:

10          DIRECT EXAMINATION BY COUNSEL FOR NAB

11          BY MR. MILLS:

12     Q.  Good afternoon, Professor.

13     A.  Howdy.

14          Can you hear?  Am I doing okay with this?

15     Q.  Maybe a little closer.

16     A.  Closer.  How's this?

17     Q.  Thank you.

18          Professor, for the record, my name's

19  Christopher Mills, representing the National

20  Association of Broadcasters.

21          Could you introduce yourself and spell your

22  name for the record.

23     A.  I'm Roman, middle initial L, Weil, W-E-I-L.

24  First name is R-O-M-A-N.

25     Q.  Thank you.
```

1   Could you give us some of your background

2   including your education and experience?

3   A.   After I graduated from high school in

4   Montgomery, Alabama, in the late '50s, I went to Yale

5   where I got a bachelor's degree in mathematics and

6   economics. Then I went to Pittsburgh and went to

7   what was then called Carnegie Tech, now called

8   Carnegie Mellon University, and I got a master's

9   degree in industrial administration and a Ph.D. in

10 economics. That ended my formal education.

11   Then I went to the University of Chicago in

12 1965, and my real education began. You learn more as

13 a professor than you do as a student.

14   And I've had an affiliation with the University

15 of Chicago since 1965, going up through ranks with

16 titles in mathematical economics, computer science,

17 information science, and for the last four years as a

18 professor of accounting and now have a title of

19 professor emeritus. "Emeritus" used to mean earned

20 by merit. It now means merely old.

21   In the intervening 45 years, I've been a

22 visiting professor at a dozen universities, Harvard

23 in the east to Stanford in the west.

24   In the past year I've been a professor at

25 Princeton, where my students will take a final exam

1 next week, Georgetown, and the University of

2 California San Diego.

3   During that period, I have written textbook,

4 professional reference books, lay people's articles;

5 refereed journal articles, peer-reviewed articles.

6   I have served on various professional

7 committees to accountants and then to the SEC, for

8 example, of accounting boards. I've done consulting.

9 That's where I get most of my industrial experience.

10 Real world experience is consulting.

11   And I served on -- in corporate boards. And I

12 have run some executive education programs. So I

13 educate corporate directors and senior executives.

14   Q. Okay. And any publications of particular

15 interest for this matter?

16   A. There is one that is right on to this matter.

17 Five or six years ago I wrote a chapter in one of the

18 professional reference book called -- the reference

19 book is called "The Handbook of Cost Management."

20 And the chapter is called "The Allocation of Cost and

21 Revenue."

22   That particular chapter followed the very first

23 publication I ever had in the American Economic

24 Review in the 1960s on the allocation of cost. So

25 I've been thinking about the allocation of costs and

 1   revenues essentially my entire career. But the most

 2   recent one was in this book, and I've quoted from it

 3   in my report.

 4   Q.   Okay. And have you served on any accounting

 5   advisory boards?

 6   A.   I have not served on any boards like the

 7   Financial Accounting Standards Board. But I've

 8   served on various committees and groups that advise

 9   those boards or advice the FASB, the Financial

10   Accounting Standard Board in the U.S., the

11   International Accounting Standards Board in London

12   the public company accounting oversight board here in

13   Washington, and the SEC here in Washington, all in

14   various aspects of accounting and auditing.

15   Q.   Okay. And on any boards of directors of

16   companies we might have heard of?

17   A.   Yes. The only one you might have heard of are

18   the mutual funds affiliated with New York Life

19   Insurance that are called MainStay Funds.

20   Q.   And any audit committees of boards?

21   A.   The audit committees of all of those boards,

22   which are -- I think of them as one big board.

23   They're really technically 80 different boards

24   because they're 80 different mutual funds. But I

25   think of it as one.

1   And then I served on the audit committees of

2   some small companies that you would hot have heard of

3   going bankrupt at the moment, but they're not

4   bankrupt yet.

5   MR. MILLS: Okay. I'd like to offer

6   Professor Weil as an expert in financial economics

7   and managerial accounting.

8   MR. OLASA: No objection, Your Honor.

9   CHIEF JUDGE BARNETT: Professor Weil is so

10   qualified.

11   BY MR. MILLS:

12   Q.   Professor, you've been handed a black binder.

13   Do you see in that binder a tab marked NAB

14   Exhibit 4011?

15   A.   Yes.

16   Q.   Okay. Behind that tab is there a report?

17   A.   Yes.

18   Q.   Thank you.

19   And did you submit written testimony in this

20   case?

21   A.   I wrote some testimony, and you submitted it.

22   Q.   Okay. Thank you.

23   And does this appear to be a copy of that

24   written testimony?

25   A.   Yes.

1   Q. And is there a signature page sort of in the

2 middle there before the appendices?

3   A. Yes.

4   Q. Is that a copy of your signature?

5   A. Yes.

6   MR. MILLS: Okay. Your Honor, we offer

7 NAB Exhibit 4011.

8   MR. OLASA: No objections, Your Honor.

9   CHIEF JUDGE BARNETT: 4011 is admitted.

10   (NAB Exhibit No. 4011 was admitted into

11 evidence.)

12   BY MR. MILLS:

13   Q. Professor, could you summarize what you were

14 asked to do in this matter.

15   A. Yes. I have this demonstrative exhibit.

16   Does everybody have a copy? Is it on a screen

17 somewhere? Or are we just --

18   Q. Everyone has a copy.

19   A. Everyone has a copy. All right.

20   So my assignment is on 3003. So I was asked to

21 look at the proposal of SoundExchange for the thing

22 that I've seen other witness refer to as a prong, one

23 of the aspects of the structure that is being

24 proposed for royalty payments where they're looking

25 at a percentage of what's called attributable

1   revenue.   Percentage of revenue under certain cases

2   will be the royalty payment.

3   And I was asked to look at the proposal in the

4   SoundExchange document for the change in the audit

5   structure from requiring a CPA to merely asking for

6   an industry expert.

7   The CPA is an industry -- needs to be an

8   industry expert. But removing the CPA requirement

9   and just an industry expert. So I've asked to look

10 at both of those things.

11   Q.   Okay. Without getting into the details yet,

12 Professor, can you give us your top-level findings?

13   A.   Yes. My top-level finding with respect to the

14 notion of having any royalties based on a percentage

15 of what the proposal called attributable revenue is

16 that it won't work.

17   It's impossible to do in any uniquely logical

18 or correct way. It can't be done, as SoundExchange

19 says, fairly in accord with -- fairly reasonable, in

20 good faith, in accord with U.S. accounting principal.

21   JUDGE STRICKLER: Good afternoon,

22 Professor. Question for you. You said it's possible

23 to do it in any uniquely logical way.

24   If we took away the "uniquely," is it

25 possible to do it in some -- one or more logical

1   ways?

2   THE WITNESS: There are many different

3   ways you might choose to do it. But there's no one

4   that is suggested by accounting principles or logic

5   for some of it.

6   When I get to expand on this -- and I can

7   do it now if you like -- we're going to see there are

8   three things that need to be taken care of in order

9   to get the costs that you will -- excuse me -- the

10   revenues you will multiply by a percentage.

11   And there's one of those that you can't

12   even deal with. Two of them you can. One of them

13   you can't. And I'll expand on that later or now. Be

14   your choice, sir.

15   JUDGE STRICKLER: I'll let counsel go

16   through his organization. So we'll defer. Thank

17   you.

18   MR. MILLS: Thank you.

19   THE WITNESS: So that's the summary of

20   that point. It can't be done in a uniquely logical

21   way. It can't be done, quote, with a fair method in

22   accord with U.S. generally accepted accounting

23   principles. It won't work.

24   BY MR. MILLS:

25   Q. And your top-level finding on the other point?

1   A.   The top-level finding on that other point is it

2   would be a truly backwards step to get rid of the CPA

3   requirement, to say just an industry expert.

4   The CPA needs to be an industry expert. But

5   the CPA brings to this task some other things that

6   the mere industry expert does not. And I think those

7   things are essential for this process to work

8   smoothly, at low cost, without litigation. But more

9   litigation is going to happen anyway.

10   Q.   Okay. I want to take a brief step back,

11   Professor.

12   Are you an expert in the broadcast industry?

13   A.   No.

14   Q.   Did you do anything to inform yourself of

15   accounting issues for the broadcast industry?

16   A.   Yes.

17   Q.   Could you briefly explain that?

18   A.   Insofar as I needed to understand the -- some

19   of the accounting issues about revenue and the

20   practices in the broadcast industry, I wanted to

21   learn a little bit about the business models of these

22   broadcasters and the accounting principles that came

23   into being.

24   And I asked you to put me in touch with some

25   accountants and auditors who were expert in the

1   industry, the kind of CPAs who would be doing these

2   audits I'm referring to in these -- and you

3   introduced me to a Mr. Garrett at an accounting firm

4   called Miller & Kaplan, whom I had at least one

5   conversation. I had maybe two and maybe a

6   conversation with a partner of his in that firm.

7   But I discussed with him the kinds of business

8   transactions that went on. And because of those

9   business transactions, I understood, from my work as

10   an accounting theorist and teaching these accounting

11   principles, that there were some applications in

12   revenue recognition that I thought might be suitable

13   for the broadcast industry.

14   And I specifically discussed with him why these

15   would or would not apply. And some of the results of

16   those discussions are implicit in my report here. So

17   I discussed with him what I thought I needed to know

18   to write my report.

19   Q.   Okay. And I also want to be clear. There are

20   many different services in this case.

21   Are you -- in your discussions in your report

22   and here today, are you talking on behalf of all

23   services or just broadcasters?

24   A.   In this case, "services" is defined, I think,

25   to exclude -- interactive services, they included or

1 excluded? I think they're excluded. They're

2 services like -- well, I've lost track of what

3 services include, that technical word. Sometimes

4 include interactive service; sometimes it doesn't.

5   Q. Let me be more specific.

6   A. Yeah.

7   Q. So, for example, Pandora is a service in this

8 matter.

9   A. Pandora is in this room. But I'm not looking

10 at Pandora. I am looking at broadcasters.

11   Q. Okay. Thank you.

12   A. So all of what I have to say is about

13 broadcasters, not about a Pandora.

14   Q. Okay.

15   A. And certainly not about interactive services,

16 which as far as I can see, they're not in this room

17 at all.

18   Q. Could you give us an overview of your

19 understanding of SoundExchange's percentage of

20 revenue proposal.

21   A. So when you do a percentage of revenue, it's a

22 multiplication of a percentage, which I understand

23 SoundExchange says should be 55 percent, times a

24 dollar number which is a revenue.

25   And you're going to hear me say something is

1   impossible for short or not uniquely rationally

2   possible.

3   I am not saying it is impossible to multiply A

4   times B. My 14-year-old granddaughter could do that.

5   She probably could do it when she was 12. She's a

6   smart kid.

7   What I'm saying is the B is not possible to

8   get. And so what I want to talk about is where does

9   the B come from. The A is a 55 percent.

10   And so SoundExchange proposes to get this

11 revenue pot by what some people have called a

12 subtractive process. Don't build it up from the

13 bottom. We start with the top, with all the revenues

14 that were broadcast or what they call gross revenues.

15 Then they take out some things like sales taxes and

16 some other things like the sales of CDs. And they

17 get a number called adjusted revenue. That's

18 unexceptional. I have no problem with that.

19   Then they take adjusted revenue, and they

20 shrink it in two steps to something they call

21 attributable revenue. And that attributable revenue

22 is the B, the revenue which is multiplied by the 55

23 percent.

24   And I want to talk about the two steps that

25 shrink adjusted revenue to attributable revenue and

1   show that both of those impossible to do in any

2   logically correct way -- any uniquely correct logical

3   way.

4   And I want to point out a third shrinkage that

5   has to be done that this proposal doesn't even

6   address at all and, therefore, is faulty.

7   So in their proposal, the first step is the

8   bundling problem. When a broadcaster sells an ad to

9   an advertiser, oft times the advertiser pays a single

10   amount of cash and gets several things.

11   Gets an over-the-air ad, gets a streamed ad.

12   It gets a banner ad on a website. Looked at a couple

13   of those as recently as this afternoon, just see what

14   they look like. Oft times gets the e-mail program,

15   which sends some blast ads to people a couple of

16   times a week. They get some sponsored concerts.

17   Sometimes you don't like when I use example. I even

18   saw one when they get a sponsored pool party. I

19   actually saw one of those. Go to the pool party, and

20   you see the advertisement for the cruise that they

21   paid for, and they gave a pot of money in one payment

22   to the broadcaster.

23   So the first step is to take that one payment

24   for this group of ads and to split it apart into the

25   thing that is for the streamed broadcast. Unbundling

3930

1   of this multi-attribute piece of revenue, is what

2   it's called in accounting. Bundling is what it's

3   called in this matter. That's the first step.

4   Second step that has to be done is, when you

5   have a broadcast that is over the air and then

6   streamed, you got to split that apart into the part

7   that's streamed versus over the air. Because people

8   in this room know better than I do the part that's

9   over the air doesn't get a royalty, and the part

10   that's streamed does. So if there's a single payment

11   for a broadcast that is simultaneously sent those two

12   ways, you got to split that apart.

13   And it says do it fair, reasonable and in a

14   good faith using generally accepted accounting

15   principles. Doesn't exist in any unique way --

16   uniquely logical way. Can't be done.

17   And third, the thing that's omitted and I think

18   is just as important -- they don't address it -- is,

19   when you have a show -- and I have an example in my

20   report, and I can give some other examples.

21   When you have a show that's got not just music

22   but talk and music or music and a sports show or

23   music and something that's not music, and it's got an

24   ad, you need to think about how much of that

25   advertising cash that's coming in is for the music

1 and how much is for the talk.

2   They don't talk about that at all. At least

3 one of the witnesses on their side acknowledged that

4 that's an issue and needs to be dealt with. But it's

5 not in his proposal.

6   So those are the three aspects of going from

7 adjusted revenue to attributable revenue to get the

8 pot B that is multiplied by the percentage.

9   And I say it can't be done in any way that is

10 unique and that these judges, Your Honor, can write

11 down in a statute that will be usable by hundreds,

12 may -- over a thousand, I heard earlier this

13 afternoon, people in any way that's not going to cost

14 endless litigation and fights. I just can't see that

15 it would possibly work.

16 Q. You said you had an example of your music

17 versus nonmusic. Maybe you could walk us through

18 that.

19 A. Oh, the music versus nonmusic, the one that's

20 in my report is from my days as a graduate student.

21 I'm a lot older than anybody else in this courtroom,

22 I think.

23   But when I was graduate students in Pittsburgh

24 in the 1960s, there was a guy on the radio in the

25 morning named Rege Cordick. And he had 85 percent of

1 the listening audience. There were a dozen radio

2 stations. 85 percent for one guy. That's because he

3 was so clever and so funny.

4 And we had the talk part of his show -- that's

5 why people listened -- and some music. And so, if

6 Rege Cordick were working today and we had simulcast,

7 we'd have to allocate the considerable revenues that

8 those shows generated between the Cordick &

9 Company -- that's what they called the talk part,

10 Cordick & Company -- versus the music.

11 And you could think about how to allocate that.

12 Time, 50/50, because it was half and half. Or

13 surveys. People say, "Well, I like 80 percent Rege

14 Cordick, and I like 20 percent music."

15 Or an economist might say, "Look, people are

16 listening to that show because of Rege Cordick. If

17 they wanted music, they'd listen to the other ten

18 stations that are all music. It's a hundred percent

19 for Rege Cordick and only nominally for the music.

20 I'd give 99 percent to Cordick an 1 percent to the

21 music." That would be the economist basis, looking

22 at what people do. You got to deal with that

23 problem.

24 Another case that's not in my report, when I

25 teach, I think students learn better with extreme

1 case. The extreme case that I would use in the

2 classroom -- in fact, I've used it in the classroom

3 in one of my teachings this summer -- is I listen to

4 baseball games on the Internet stream, MLB.com, and I

5 listen because my son lives in Baltimore. I listen

6 to the Baltimore Orioles.

7   And when the Baltimore Orioles play the Toronto

8 Blue Jays at home, Canada, the game is always

9 preceded by the national anthems of the U.S. and

10 Canada. And they always sing "O Canada."

11   Now, like Professor Lys, who's a professor of

12 accounting -- I've known him since he was a student

13 -- I got this oddball liking for classical music and

14 western. So I like Celine Dion singing "O Canada"

15 because that's from Mozart. You know that that tune

16 was written by Mozart, "O Canada"?

17   So there's one song in a three-hour broadcast

18 that somebody's going to collect the royalty because

19 Celine Dion is singing that song. And it doesn't

20 make sense that all those ads that I'm hearing on

21 this stream broadcast go to SoundExchange because she

22 sang that song.

23   Somebody's got to deal with that problem. And

24 that's not in this report. Not in this proposal.

25   So we got the Celine Dion extreme case. We got

1 the Rege Cordick kind of extreme case where it's all

2 for the talk and not for music.

3   But, in general, there's talk shows with music

4 interspersed. Somebody's got to deal with that

5 problem. And even the expert on the other side

6 acknowledges it, but we don't see what to do with it.

7   MR. MILLS: Your Honors, I'm mindful of

8 the time. I'm almost done but looking on to a last

9 topic. If you want to continue?

10   CHIEF JUDGE BARNETT: Let's go ahead.

11 Ms. Whittle may get up and leave again at 4:30, but

12 we'll soldier on without her.

13   MR. MILLS: Okay. Thank you.

14   BY MR. MILLS:

15 Q. All right, Professor. If we could just move to

16 your second point, CPA point, could you summarize or

17 go into as much detail as you like on your findings?

18 A. Okey-doke. So the proposal is drop the

19 requirement for the CPA and use an industry expert.

20   I am not disputing that the person who does the

21 audit needs to be an industry expert. Goes without

22 saying. Plenty of CPAs who are industry expert. I

23 talked to one. Mr. Garrett is an industry expert.

24   But the CPA brings to the party some things

25 that a mere industry expert needn't bring. First

1 thing, brings objectivity. Not trying to look for

2 underreporting or overreporting. He's just trying to

3 get the right number.

4   The next thing that a CPA brings is some ethics

5 and some general training that is useful for doing an

6 audit by passing the CPA exam and taking these ethics

7 to qualify for doing an audit the way an industry is

8 not.

9   Now, you may think that's trivial and not

10 important. But let me ask you lawyers to think about

11 this. There are a lot of people who can draw up a

12 will. But we don't let laymen draw up wills. We can

13 you got to go to law school and learn a whole -- a

14 number of things that go being a lawyer before we'll

15 let you draw up a will.

16   JUDGE STRICKLER: It also restricts entry.

17   THE WITNESS: Well, I didn't say that, but

18 I'm glad you said it. You're an economist, aren't

19 you? You know about that.

20   My daughter's an MD. And she's told me

21 that, when you do a hip replacement, the guy working

22 with the surgeon is the salesman of the hip joint.

23 And he's capable of doing that surgery maybe better

24 than the surgeon, but they don't let him do it

25 because he hadn't been to medical school, and he's

1 not licensed.

2   Maybe that's restricting entry, and maybe

3 it isn't. But we say the person who's doing that hip

4 replacement's got to be an MD. Well, that's because

5 there's some training that goes on in medical school

6 beyond doing the physical act of doing the hip

7 replacement.

8   Now, the thing that is I think important

9 in this particular kind of audit is that the

10 accountant, the CPA, has, as part of the rule book

11 that goes with audits, something called an agreed

12 upon procedure.

13   If you're doing an audit of a royalty, the

14 CPA knows, because it's part of our procedural book,

15 to get the parties together ahead of time and agree,

16 for example, on a standard materiality.

17   We'll get to royalty. We know we don't

18 need to get it exactly to the penny. That would cost

19 a lot of money to get it exactly to the penny. Might

20 have to spend a couple million dollars to do it.

21   Maybe want to spend $100,000 to get it to

22 the nearest $10,000 estimate. Or maybe want to spend

23 only $50,000 and get it to the nearest $5,000

24 estimate. Or maybe want to spend only $10,000 and

25 get it accurate within a $20,000 estimate.

1   But let's decide this ahead of time

2   between the party being audited, the broadcaster, and

3   SoundExchange. Let's agree ahead of time on the

4   materiality standard and the cost of the audit. So

5   ahead of time, not with litigation afterwards. CPAs

6   agreed upon procedures will handle that.

7   Similarly what documents will be fair game

8   for this auditor in terms of doing the royalty audit?

9   Let's don't argue about that after the fact, which I

10   gather might go on now. Let's specify that ahead of

11   time. Let's have agreed upon procedures to do it.

12   Now, the industry expert could figure out

13   maybe how to do this and draw up a rule book. But

14   the CPA's already got the rule book on how to do it.

15   And I'm not saying CPAs, with the AICPA rule book,

16   are uniquely qualified to do this.

17   You've probably never heard of a CMA,

18   certified management accountant. They could probably

19   do it too. You ever heard of a CIA? That stands for

20   certified internal auditor. They have exams, and

21   they have rule book. They might be able to do it

22   too.

23   But you've got the CPA now in your -- what

24   do you call it, the statutes?

25   BY MR. MILLS:

1   Q.   Regulations.

2   A.   Regulations. You got them in your regulations.

3   Don't step back from that. They bring

4   something useful to the party. They have to be a

5   industry expert, but you don't need to say that in

6   the regulation because part of our ethics, we're not

7   going to take on that engagement unless we know what

8   we're doing, unless we want to get the equivalent of

9   disbarred. We don't call it disbarred. You say you

10   lose your license, you lose your certification if you

11   try to do a job like that and you're not qualified

12   for it.

13   So I think it would be a step backwards to lose

14   the benefits that come with being a CPA.

15   MR. MILLS: Okay. Thank you, Professor.

16   No further questions from me.

17   MR. POMERANTZ: Your Honor, we have

18   probably 15 or 20 minutes of cross. I don't know if

19   we want to wait until tomorrow morning or do it

20   today.

21   CHIEF JUDGE BARNETT: Let's do it.

22   THE WITNESS: I've never seen a lawyer say

23   20 minutes.

24   MR. POMERANTZ: I'm not the one asking the

25   questions. He is.

1   CHIEF JUDGE BARNETT: You've never seen

2 lawyers as good as these.

3   THE WITNESS: Okay. Bet you a nickel.

4   JUDGE STRICKLER: 20 minutes starts now.

5   THE WITNESS: Am I betting you too?

6   JUDGE STRICKLER: No. I don't want to

7 lose my certification.

8   CROSS-EXAMINATION BY COUNSEL FOR SOUNDEXCHANGE

9   BY MR. OLASA:

10   Q. Good afternoon, Professor Weil.

11   A. Hi.

12   Q. My name is Kuruvilla Olasa, and I represent

13 SoundExchange.

14   A. Which one of those is your last name?

15   Q. Olasa, O-L-A-S-A.

16   A. Mr. Olasa. Hi.

17   Q. Professor Weil, let's start with your opinion

18 on audits. And then I have a few questions here.

19   To be clear, in this case we're talking about

20 royalty audits, correct?

21   A. Yes, sir.

22   Q. And a royalty audit is different from a

23 financial statement audit, correct?

24   A. No question.

25   Q. Okay. And you would agree with me that, to an

1   accountant, financial statement audits involve

2   different rigors and standards than royalty audits?

3   A.   Certainly generally accepted auditing standards

4   for financial statements do not apply to royalty

5   audits. So let me grant that part of your question.

6   "Rigor," I don't know what that means. The

7   royalty audit could be just as rigorous or less

8   rigorous or more rigorous than a GAAP audit. So

9   rigor is not defined in my jargon, in our technical

10 world. So I'm not sure of rigor.

11   Q.   Professor Weil, are you the editor of the

12 Litigation Services Handbook?

13   A.   Yes, sir.

14   Q.   And is the title of that handbook "The Role of

15 the Financial Expert"?

16   A.   Some editions are. I'm not sure which edition

17 you're looking at.

18   Q.   Is there a fifth edition of --

19   A.   Yes, sir.

20   Q.   -- the Litigation Services Handbook?

21   A.   Yes, sir.

22   Q.   Would you agree that, in contrast to financial

23 statement audits, royalty audits have a limited scope

24 and usage?

25   A.   Yes, sir.

3941

1   Q.   And would you agree that, unlike financial

2   statements audits --

3   A.   Excuse me. Let me ask you, Mr. Olasa, there is

4   a chapter in the fifth edition --

5   Q.   I'm sorry, Professor Weil. Your counsel will

6   be able to --

7   A.   Are you looking at the fifth edition or the

8   supplement that just came out? Let me just ask you

9   that. Because there's a new chapter on --

10   Q.   I'm looking at the supplement.

11   A.   The one that just came out.

12   Q.   The one that just came out.

13   A.   Okay. Thank you.

14   Q.   2015 cumulative supplement.

15   A.   Good. Good. Good. Okay.

16   Q.   And you would agree that, unlike financial

17 statement audits, royalty audits can be performed by

18 a nonCPA if the contract allows it?

19   A.   Yes.

20   Q.   And you have not considered what the actual

21 marketplace contracts say about whether a CPA is

22 required, correct?

23   A.   I'm sorry. I don't understand what you mean by

24 the marketplace contracts.

25   Q.   Professor Weil, have you looked at the

1 contracts between webcasters and record companies in

2 the market today?

3   A. I certainly have not studied them. I think

4 I've seen a couple, but I have not studied them. So

5 let me agree. I have not.

6   Q. Okay. So you don't know whether those actual

7 marketplace contracts require a CPA or not; is that

8 correct?

9   A. Yes.

10   Q. So you haven't performed the analysis?

11   A. Yes, I have not.

12   Q. So if the actual marketplace contracts provided

13 for a nonCPA to provide -- to perform the audit, that

14 would be acceptable, correct?

15   A. Certainly would be for that particular

16 contract. We've got a willing buyer and a willing

17 seller. Whatever they agree to is okay.

18   We're talking about the judges here setting

19 standards for about a thousand broadcasters that

20 range from mama-papa to the big ones like iHeart.

21 You have to apply to everybody.

22   Q. So I want to follow up on that last question.

23   Do you understand that the goal of this

24 proceeding is to establish rates and terms that most

25 clearly represent the rates and terms that would have

1   been negotiated in the marketplace between a willing

2   buyer and a willing seller?

3   A.   I could not have quoted those words precisely,

4   but that sounds like the understanding I have picked

5   up from the beginning of this. That sounds right.

6   Q.   So if a willing -- so willing buyers and

7   willing sellers would negotiate rates and terms that

8   did not require a CPA, wouldn't that require these

9   judges to also not require a CPA?

10   A.   If some willing buyers and some willing sellers

11 would do it, that would give you some evidence that

12 it was acceptable to those willing buyers and willing

13 sellers. But it doesn't tell you about a thousand of

14 them.

15   Q.   And how would you tell whether a thousand

16 willing buyers and willing sellers would agree to not

17 require a CPA?

18   A.   You'd probably want to survey them and ask

19 them.

20   Q.   Would you want to look at many contracts

21 between actual willing buyers and willing sellers?

22   A.   Or -- in addition to that, you might want the

23 ask the broadcasters.

24   Q.   Have you asked a thousand broadcasters?

25   A.   I have not asked any broadcaster. So no, I

1 have not.

2   Q. Let's move on to the revenue allocation topic,

3 Professor Weil.

4   So you believe that the judges should not set a

5 statutory rate based on the percentage of revenue,

6 correct?

7   A. I did not say that. What I said was they

8 should not set based on a percentage of revenue where

9 the revenue pot is defined the way the proposal from

10 SoundExchange is.

11   Q. Understood.

12   And that's because difficulties in allocating

13 revenues would arise; is that correct?

14   A. Well, and possibilities. Not difficulties.

15 More than difficulties.

16   Q. And you believe that those difficulties can be

17 avoided by using a per-play fee instead, correct?

18   Well, let --

19   A. That's one way, yes. I hadn't thought about

20 that way. But yes, I think so. Those difficulties

21 would be avoided.

22   Q. Well, let me turn your attention to your

23 testimony on Page 5.

24   You see the sentence starting at Line 188? It

25 begins with "These allocation issues"?

1   A.   Yes.

2   Q.   So you believe these allocation issues can be

3   avoid by sticking with the current per-play royalty

4   approach, correct?

5   A.   Yes. But not uniquely the way to do it, but

6   that is a way to do it.

7   Q.   Sure?

8   A.   That's why I hesitated. Because I couldn't

9   figure out whether you were asking about uniquely or

10 a way. That's a way.

11   Q.   And your testimony does not compare the

12 downside of a per-play royalty fee approach to the

13 downside of a percentage of revenue royalty approach,

14 correct?

15   A.   Yes. It does not.

16   Q.   And you did not consider whether it could be

17 difficult for the judges to set a single per-play fee

18 that works for all webcasters, correct?

19   A.   You are right, yes.

20   Q.   And you don't address whether the per-play fee

21 in SoundExchange's rate proposal would need to be

22 increased to account for removing the revenue prong,

23 as you suggest.

24   A.   I'm sorry. Increase relative to the proposal,

25 or increase relative what it is today?

1   Q.   Relative to the proposal.

2   A.   I have not.   There is no one today.   So it may

3 be lower relative to one today.   So as long as we're

4 clear.   At any rate, I haven't considered what that

5 fee should be, up, down or sideways.

6   Q.   So let me see if I can clean that up.

7   You haven't considered whether a per-play fee

8 should be adjusted if one were to remove the revenue

9 prong from a rate proposal; is that correct?

10   A.   Correct.

11   Q.   When you drafted --

12   A.   As a matter of theory, it almost certainly

13 would be.

14   Q.   So as a matter of theory, a per-play rate would

15 certainly have to be adjusted if you were to remove

16 the revenue share prong?

17   A.   Theory suggests in first principles it would

18 be.   If it were right when it was the lower of two,

19 and you take away the other one, then it doesn't seem

20 -- it seems like this one would have to change.

21   Q.   It would have to change?

22   A.   Almost certainty.   But that's just off the back

23 of an envelope kind of thing.   Seems plausible it

24 would have to change.

25   Q.   When you drafted your testimony, were you aware

3947

1 that Professor Lys had submitted written direct

2 testimony in this case?

3   A. I am -- you know, this is like Howard Baker.

4 What did he know, and when did he know it. I know

5 that Professor Lys had. He was -- I've known him

6 since he was a graduate student. I do not know when

7 I knew it. I know now that he did. I don't know

8 when I learned that he did.

9   Q. Did you consider Professor Lys's testimony in

10 drafting your written direct testimony?

11   JUDGE STRICKLER: You mean rebuttal

12 testimony?

13   MR. OLASA: Sorry.

14   BY MR. OLASA:

15   Q. Did you consider Professor Lys's written direct

16 testimony in drafting your written rebuttal

17 testimony?

18   A. Am I allowed to ask my counsel whether I read

19 it ahead of time?

20   Q. Well, let me see if I can refresh your

21 recollection.

22   A. Okay. Did I refer to it in my report? Do I

23 have it in a footnote? Do I have it in my documents

24 referred to?

25   It's a memory test mode? I don't remember.

3948

1 You're allowed to test my memory. I'm just saying we

2 could be helpful --

3   MR. OLASA: No. We don't need to do that,

4 Professor Weil.

5   Permission to hand to the witness --

6   CHIEF JUDGE BARNETT: Certainly.

7   THE WITNESS: I don't see it here.

8   BY MR. OLASA:

9   Q. So is it fair --

10   A. And I told the truth. So I must not have

11 looked at it.

12   JUDGE STRICKLER: Can we identify the

13 document that he says he can't see it on for the

14 record.

15   BY MR. OLASA:

16   Q. Professor Weil, is this the list of documents

17 considered in preparing your written rebuttal

18 testimony?

19   A. It is that. Yes, sir.

20   MR. OLASA: Your Honors, I offer this

21 document, which is the documents considered by

22 Professor Weil, into evidence.

23   MR. MILLS: No objection.

24   CHIEF JUDGE BARNETT: It doesn't have a

25 number.

3949

1   MR. OLASA: That's right, Your Honor.   I

2   did not --

3   CHIEF JUDGE BARNETT: And the clerk is

4   missing.

5   MR. POMERANTZ: We'll do it tomorrow

6   morning when --

7   CHIEF JUDGE BARNETT: Okay.   We'll assign

8   the number tomorrow, and it will be admitted.

9   MR. OLASA: Thank you, Your Honor.

10   JUDGE STRICKLER: Is it part of his

11   testimony already?

12   MR. OLASA: It's not.   It was provided to

13   us by counsel, Your Honor.

14   BY MR. OLASA:

15   Q.   Professor Weil, when you drafted your

16   testimony, were you aware that Professor Lys had

17   analyzed the benefits and risks of both a pure

18   performance fee rate structure and a percentage of

19   revenue rate structure?

20   MR. MILLS: Objection, Your Honor.   I

21   think he just admitted --

22   MR. OLASA: I withdraw the question.

23   CHIEF JUDGE BARNETT: Thank you.

24   BY MR. OLASA:

25   Q.   Professor Weil, when you were drafting your

1 written rebuttal testimony, did you ask counsel to

2 provide you with all relevants documents to your

3 testimony?

4   A. I can't recall whether I asked that question.

5 Either -- I certainly don't know whether I asked it

6 in those words. I don't know if I asked it in that

7 form.

8   Q. Would you have expected counsel to provide you

9 with all relevant documents to your testimony?

10   A. I am not certain that counsel would have

11 provided all documents that you think are relevant.

12 I think he would provide me with all documents he

13 would think were relevant. And I'm not sure you two

14 would agree.

15   Q. Fair enough. Fair enough.

16   Would you consider a document in which

17 Professor Lys analyzed the benefits and costs of a

18 percentage of revenue royalty structure to be a

19 relevant document that you would have wanted to have

20 considered when you drafted your rebuttal testimony?

21   A. No.

22   Q. You would not have wanted to consider that?

23   A. That's correct. My assignment was to look at

24 the SoundExchange proposal and to think about the

25 percentage of royalty proposal. And that's what I

1 did. And I told you what's wrong with it.

2   I was not asked to think about what is right or

3 wrong with the fee per play. That's not part of my

4 assignment. Had that been part of my assignment, I

5 would have asked about the pros and cons of that.

6 But I didn't do that.

7   Q. If Professor Lys had analyzed the pros and cons

8 of a percentage of revenue structure, would that have

9 been relevant to your analysis?

10   A. If he had analyzed the feasibility of doing it,

11 I would have wanted to know about it. And I have

12 since read his report. And I know what he did. And

13 he didn't come close to thinking about the issues I

14 thought about.

15   He looked at contracts where he defined revenue

16 as essentially the whole pot without any allocation

17 problems. Most of the contracts he looked at were

18 interactive services, not broadcasters with bundled

19 things. And he did not look at cases that are

20 relevant for these broadcasters.

21   Now, I didn't see those before my report, but I

22 have seen them since. So it would not have been

23 informative.

24   MR. OLASA: Your Honor, I move to strike

25 the last response as going beyond the scope of

1 Professor Weil's written direct testimony -- I mean

2 written rebuttal testimony.

3   MR. MILLS: Your Honor, he asked him three

4 or four times to talk about Professor Lys.

5   CHIEF JUDGE BARNETT: It was an answer to

6 your question. So we will not strike it.

7   BY MR. OLASA:

8   Q. Professor Weil, at the time of drafting your

9 written rebuttal testimony, had you considered any

10 contracts between record companies and simulcasters?

11   A. That's one of these what did he know, and when

12 did he know it questions.

13   If it is not referred to in my report and not

14 in my documents considered list, then no. That's a

15 -- I don't think so, but I certainly have seen

16 something.

17   Q. So at the time you drafted your testimony, you

18 didn't know whether the contracts in the marketplace

19 were consistent with SoundExchange's rate proposal;

20 is that correct?

21   A. If I hadn't looked at them, then I could not

22 know either way, consistent or inconsistent. If I

23 didn't look at them, I know nothing about them when I

24 wrote my report.

25   Q. You believe the context of the industry is

1 relevant to your analysis, correct?

2   A. I don't know what you mean by "the context of

3 the industry." I've looked at the kinds of bundled

4 revenue that need unbundling. Is that context? I

5 suppose. And I looked at over-the-air versus

6 streaming and the fact that congress says there's no

7 royalties on over the air --

8   Q. Professor Weil, I have a different --

9   A. So I'm just thinking out loud, sir, to answer

10 your question. Is that context? I'm not sure what

11 you mean. I think that's context, so it is relevant.

12 And talk versus nontalk, I think that's context, so

13 it's relevant.

14   So maybe I shouldn't think out loud. But I

15 think those three are context and, therefore, in that

16 sense, relevant.

17   If you mean something else, you have to tell me

18 what you mean. Context is not a technical term in my

19 jargon.

20   Q. Let me direct you to Page 3 of your testimony,

21 Line 111.

22   Would you agree that, in considering the

23 application of SoundExchange's proposed regulations

24 to simulcasters, the context of the industry is

25 relevant?

3954

1   A. Oh, yes. Okay. In this context, I see what I

2 mean by context. Yes.

3   Q. Aren't contracts a part of the context of the

4 industry?

5   A. As that word would be used by laymen, yes.

6 That's not what I meant here, I can see. Yes.

7 Context is not a technical word. And it certainly --

8 there certainly would be an interpretation of that

9 word that would include contracts.

10   And line 112 I am thinking about hundreds of

11 radio broadcasters that range in size. That's the

12 context that I had in mind in writing that sentence,

13 I can see.

14   Q. Professor Weil, you testified that there is no

15 uniquely correct way to allocate revenues between a

16 company's business activities, correct?

17   A. Yes.

18   Q. And when you say "uniquely correct," you mean

19 that they may be multiple approaches but no reason to

20 pick one over the other, correct?

21   A. That's correct.

22   Q. And allocating revenues is a general problem in

23 accounting, correct?

24   A. Sometimes.

25   Q. And this problem is not unique to this context;

1   it exists in many industries, correct?

2   A. Yes.

3   Q. Yet accountants are, in fact, often called upon

4   to allocate revenues between business activities,

5   correct?

6   A. Certainly we have accounting principles to do

7   it, but we are never called upon to do it in a fair

8   way.

9   JUDGE STRICKLER: Along those lines, you

10 mentioned how, if it was attempted, you believe

11 that -- you used a particular word -- but the parties

12 might end up mired in litigation.

13   THE WITNESS: I'm confident they would be.

14   JUDGE STRICKLER: Have you seen, in your

15 experience, that when parties anticipate and counsel

16 for parties anticipate the potential for potential

17 litigation, that one of the things they do is assign

18 the auditor -- CPA auditor with the power to make the

19 determination that will be binding upon the parties

20 so that they avoid the transaction costs of

21 litigation?

22   A. I have seen that. But in the contracts that I

23 have seen, they do even better than that. They

24 define the pots that have the revenue in them. They

25 don't go through this allocation. They say, "We

1 define pot A to include this. We define pot B to

2 include that." And the willing buyer and the willing

3 seller agree on that. There's no allocation.

4   The problem with the word "allocation," it has

5 two meanings in lay language. There's the meaning

6 that says assigned. We'll assign this revenue to

7 this pot; we'll assign this revenue to that pot.

8 That's a legitimate definition of the word

9 "allocation."

10   But when an accountant uses the word

11 "allocation," we mean find a formula, find a theory,

12 find a mechanism for doing a calculation that ends

13 up.

14   And in this proposal from SoundExchange, it

15 doesn't mean assignment. It means a formula or a

16 technique that would generally apply to the thousand

17 broadcasters, that you crank in some numbers or run

18 the algorithm, and out comes the numbers.

19   That's what I mean by allocation that won't

20 work.

21   JUDGE STRICKLER: Because you say there's

22 no one uniquely correct way to do it.

23   THE WITNESS: And so there will be a

24 fight.

25   JUDGE STRICKLER: The parties can -- and

1   you say you've seen it in their agreements -- say,

2   "Despite the fact that there's no uniquely correct

3   way to do it, we'll agree it's a mechanism to assign

4   a CPA auditor with knowledge in the industry to make

5   the determination. And we'll live or die by that

6   particular individual's determination and treat the

7   auditor as though he were an arbitrator."

8   THE WITNESS: Right. But when that --

9   JUDGE STRICKLER: You've seen agreements

10   to the effect.

11   THE WITNESS: Yes, I have. And I think,

12   if that's going to happen here, it would need to be

13   in your regulations that you get.

14   You have to say who would pick it, what

15   kind of person could do it. And I think that would

16   need to be something that you folks figured out, not

17   leave it to the parties.

18   JUDGE STRICKLER: Right. Well, we set not

19   only rates but terms, which is why you're sitting

20   here today.

21   THE WITNESS: Right.

22   JUDGE STRICKLER: So to the extent we have

23   the authority to set such a term -- you say you've

24   seen such terms in the industry, and they're done in

25   the ordinary course.

1   THE WITNESS: About who would arbitrate

2   the fight.

3   JUDGE STRICKLER: Right. To avoid --

4   THE WITNESS: And I would like more

5   guidance for the people to start with than what's

6   here. I just don't think this is workable.

7   JUDGE STRICKLER: Well, you said that what

8   was here -- by "here" we mean SoundExchange's

9   proposal --

10   THE WITNESS: Right.

11   JUDGE STRICKLER: -- doesn't provide for a

12   uniquely correct way to do it.

13   And I think, in response to counsel's

14   question, you said yes, there may be reasonable ways

15   to do it, but people will differ over what they think

16   is reasonable.

17   If the parties agreed on the person to

18   make that decision, haven't we avoided the

19   transaction cost problem?

20   THE WITNESS: Let me tell you about -- it

21   says "According U.S. GAAP." Let me tell you what

22   U.S. GAAP would say to do here. May I tell you?

23   There is a U.S. GAAP guidance on this. And let me

24   tell you what it says. This is in respect to the

25   first two problems. It doesn't treat the third. You

1 guys have got to deal with this third one.

2   But U.S. GAAP says, when you have a

3 multiple element contract like this bundle, there are

4 three ways to deal with the separation of the

5 bundling. You need to get to relative selling price

6 first, to use something called VSOP, vendor specific

7 objective evidence.

8   Second way is to use something called

9 third-party evidence, other people's prices.

10   And at the bottom of the barrel is

11 something called best estimate of selling price.

12 That's the third choice. Best estimate of selling

13 price is the technical way of saying, "I made it up

14 myself." That's what I tell them. You make up the

15 number yourself.

16   And that's in Generally Accepted

17 Accounting Principles. And one of the people in this

18 room in their publicly -- 10-K says, "We do it, and

19 we use best estimate of selling price. We made these

20 numbers up ourself."

21   So if we stick with this rule, and we get

22 Generally Accepted Accounting Principles to tell us

23 how to do it, and they choose the best estimate of

24 selling price, and that is GAAP, and now we get

25 somebody come in to say, "All right. Did they do it

1 according to GAAP?" "Yes, they did." SoundExchange

2 is going to squeal like a stuck pig. They made those

3 number up themself. But it's according to GAAP.

4   I think it is unworkable because Generally

5 Accepted Accounting Principles say you can use

6 numbers you made up yourself. Best estimate of

7 selling price. I can show it to you in the

8 regulations. I could show it to you in the 10-K of

9 some people in this room.

10   JUDGE STRICKLER: Thank you.

11   BY MR. OLASA:

12   Q. Professor Weil, I'd like to turn your attention

13 to Page 8, Line 279.

14   THE WITNESS: You can subtract my

15 filibustering from the time on this bet, Your Honor.

16   MR. OLASA: I just have a couple more

17 questions.

18   JUDGE STRICKLER: Maybe you want to double

19 down.

20   THE WITNESS: 279? Right. "Any basis."

21   BY MR. OLASA:

22   Q. You say: "Any basis for allocating" -- well,

23 I'll let you read the sentence, Professor Weil.

24   A. Out loud or to myself?

25   Q. Out loud, please.

1   A.   Okay.   "Any basis for allocating advertising

2   revenue between over-the-air and simulcast would be

3   arbitrary."

4   Q.   And --

5   A.   And now let's stop there.   Let me --

6   Q.   Well, Professor Weil --

7   A.   When an accountant uses the word "arbitrary" --

8   JUDGE STRICKLER: He hasn't asked you a

9   question.

10   THE WITNESS: Well, I wanted to explain

11   what arbitrary means when it got to accountants.   It

12   doesn't mean what layman means.

13   JUDGE STRICKLER: You still have to play

14   by the rules.

15   THE WITNESS: Okay.   All right.

16   JUDGE STRICKLER: You can't just make it

17   up.

18   THE WITNESS: Okay.   Thank you, sir.

19   Please ask me what "arbitrary" means.

20   BY MR. OLASA:

21   Q.   Professor Weil, by the word "arbitrary," am I

22   correct in saying that -- when an accountant uses the

23   word "arbitrary," am I correct in assuming that an

24   accountant does not mean random or capricious?

25   A.   Oh, good.   I couldn't have said it better

 1 myself. Sounds like you're quoting from my

 2 dictionary.

 3   Q. Is that right?

 4   A. That's correct. Thank you.

 5   Q. And does that mean that allocation of revenue

 6 is a matter of discretion but not random or

 7 capricious?

 8   A. Correct.

 9   MR. OLASA: All right. No further

10 questions.

11   CHIEF JUDGE BARNETT: Mr. Mills, anything

12 further?

13   MR. MILLS: Nothing further.

14   CHIEF JUDGE BARNETT: Thank you, Professor

15 Weil.

16   THE WITNESS: Thank you.

17   CHIEF JUDGE BARNETT: We are at recess

18 until 9:00 in the morning.

19   JUDGE STRICKLER: Tomorrow morning who are

20 we starting off with? Do we know?

21   MR. THORNE: Professor Doug Lichtman will

22 be on the stand.

23   JUDGE STRICKLER: Have you gentlemen come

24 to an agreement as to which portions of the conjoint

25 testimony --

1   MR. THORNE: Yes. He'll be primarily

2   addressing Professor Rubinfeld's interaction

3   benchmark and then the corroborative evidence, the

4   Apple and 3E services.

5   JUDGE STRICKLER: Give that to me one more

6   time. Apple, the 3E, and what else?

7   MR. THORNE: The interactive service

8   benchmark that Professor Rubinfeld relies on. And

9   that corresponds, if you look at the rebuttal -- the

10 written rebuttal testimony, that's parts Roman

11 numeral II, Roman numeral III, Roman numeral VI.

12   JUDGE STRICKLER: And the supplemental --

13   MR. THORNE: And then the supplemental

14 rebuttal testimony on Apple and the 3E services.

15   JUDGE STRICKLER: And we talked about

16 going back to back if we got to --

17   MR. THORNE: Professor Fischel and --

18   JUDGE STRICKLER: Just Professor Fischel.

19 Dr. Lichtman we're not going to do that.

20   MR. THORNE: Correct.

21   MR. POMERANTZ: And I think that's the

22 only witness for tomorrow. We have not been notified

23 of any other witness that's taking the stand

24 tomorrow.

25   CHIEF JUDGE BARNETT: That should more

3964

1 than do.

2   THE WITNESS: Thank you for letting me

3 finish today.

4   JUDGE STRICKLER: I'm going to be thumbing

5 through some things, so act as if I'm not here.

6   (Whereupon, the proceeding was adjourned

7 at 4:52 p.m.)

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

3965

1   CERTIFICATE OF COURT REPORTER

2

3   I, Bonnie L. Russo, do hereby certify that the

4 foregoing transcript is a true record of the

5 proceedings to the best of my ability, that I am not

6 related to or employed by any of the parties involved

7 in these proceedings, and, further, that I am not a

8 relative or employee of any attorney or counsel

9 employed by the parties hereto, or financially

10 interested in the proceedings.

11

12   _Bonnie L. Russo_

13   _____
                  Notary Public

14

15 My Commission Expires:

16 May 16, 2016

17

18

19

20

21

22

23

24

25

$

$10 3884:2
3886:4,9,17,22,2
5 3890:24
3891:8,11,21

$10,000
3936:22,24

$100,000 3936:21

$2.53 3884:3
3891:7

$2.99
3730:18,22,25
3733:6

$20,000 3936:25

$4.99 3730:7,15
3733:21

$5 3727:19

$5,000 3936:23

$50,000 3936:23

$60 3727:19

$8 3884:21

$839 3879:7

$9.99 3728:20
3729:12 3732:21
3741:18 3757:15

0

0in 3755:14

1

1 3678:6 3679:5
3684:1
3724:9,10
3743:10,20
3762:7 3813:1
3815:6
3898:13,22
3932:20

1.7 3814:6
3815:12 3846:3

1:05 3806:14

10 3734:11,13,14,1

8 3735:19
3737:7 3753:12
3777:23 3778:1
3780:7
3785:12,14,15
3786:6,11
3787:11 3788:3
3790:7 3792:24
3793:2 3835:2

100
3825:8,13,16,20
3851:23
3859:2,8
3893:11

10036 3669:11

10153 3669:7

105 3808:21

10-K 3959:18
3960:8

11 3739:5
3741:1,9,11
3800:15,16
3801:3,7

111 3953:21

112 3709:14
3954:10

12 3741:3,8
3749:13
3756:2,7
3757:10 3758:10
3773:17
3778:3,8,10
3779:24 3786:7
3793:1 3861:18
3863:12,20
3866:10,23
3928:5

12.2 3860:24

12.5 3860:22

12th 3769:3

13 3723:23
3748:24,25
3749:19
3775:6,14,19,23
3776:6

14 3668:15 3729:9
3730:21

14-PUBLIC
3668:8

14th 3723:22

14-year-old
3928:4

15 3730:16 3734:5
3738:3 3819:3,4
3833:7 3938:18

**15-CRB-0001-
WR** 3668:7

16 3738:1 3777:12
3818:6,7,8
3869:4 3965:16

1615 3669:20

17 3709:13
3724:15 3816:14
3886:8,23
3890:24,25
3891:1

1717 3669:24

1735 3672:8
3776:23,25
3777:1

1776 3669:15
3670:5

18 3709:14
3727:17 3740:13
3777:12 3779:18
3874:12

188 3944:24

19 3754:3,6
3770:14 3779:17

1960s 3919:24
3931:24

1965 3918:12,15

1977 3807:18

1994 3719:2

1998 3720:16

1M 3678:23

2

2 3679:15 3727:6
3743:10,20
3776:18 3783:24
3796:11
3799:3,10
3821:14 3843:11
3844:3 3854:18

2,006 3723:19

2.0 3889:24
3890:12,14

2.53 3891:11

2.99 3731:12,17
3759:10

20 3772:23
3780:1,4,6,7,8
3809:25 3852:21
3864:21 3932:14
3938:18,23
3939:4

20006 3669:15,24
3670:5

2002 3768:12
3769:22 3770:9
3772:6,7,16

2003 3772:5

20036 3669:21

20037 3670:9

2005 3674:20
3676:20

2006 3800:15
3801:3

2007 3878:16

2008 3674:23

2011 3672:8
3674:24
3677:1,5
3776:19 3777:14

2012 3780:13

2013 3879:8

2014 3674:17
3779:2 3780:1,3

2015 3668:15
3778:14
3791:8,12
3796:2 3941:14

2016 3965:16

2016-2020 3668:7

202-326-7992
3669:21

202-719-7008
3670:6

202-719-7453
3669:16

202-783-4141
3670:10

202-857-6000
3669:25

21 3727:16
3772:23
3791:2,7
3792:12

212-310-8000
3669:8

212-872-1000
3669:11

213-683-9107
3669:4

22 3809:25 3864:4

2257 3672:5

2267 3672:8
3777:22
3778:18,20,21

227 3771:7

2271 3779:1

2273 3780:12,16
3782:16

2276 3768:6,23
3770:8

2277 3771:9

2280 3756:9

2281 3749:18

2284 3672:6
3748:3,12

3750:15
3751:7,9,15

2285 3672:7
3748:5,12
3750:15
3751:8,9,15

23 3740:10
3777:11
3893:7,9,12
3894:20

2300 3670:8

24 3681:12
3778:4,10
3779:24

24-year-olds
3777:13

25 3777:5,11
3809:23 3857:25
3858:1,3
3893:16 3894:21

25th 3769:8
3868:12,16

27 3824:9

279 3960:13,20

28 3685:1
3708:14,15

29 3708:14,15

2nd 3723:21

3
---

3 3680:3 3683:4
3684:4
3728:7,22
3743:11,20
3767:7 3777:21
3821:14
3843:4,11
3953:20

30 3684:21,22
3685:8 3727:17
3730:23 3733:3
3758:25 3802:18
3850:23 3851:14
3858:4
3860:2,7,14

3868:14,15

3003 3922:20

30-day 3708:23

3220 3672:11
3679:5,8,9

3221 3672:12
3682:21,23,24

33,000 3819:1

34 3737:21
3775:6,23
3776:6 3777:11

34-year-old
3775:19

34-year-olds
3775:15

35 3885:10

355 3669:3

3639 3680:1

3668-3685 3668:8

3673 3671:3

3679 3672:11

3682 3672:12

3686 3671:4

3708-3711 3668:9

3709 3671:3

3717 3671:7

3717-3902 3668:9

3722 3672:3

3747 3671:8

3751 3672:6,7

3777 3672:8

3778 3672:5,8

3798 3671:7

3806 3671:11

3811 3672:15

3836 3671:11

3868 3671:11

3872 3671:14

3875 3672:15

3893 3671:14

39 3724:18

3917 3671:17

3917-3965
3668:10

3922 3672:16

3939 3671:17

3E 3963:4,6,14

3rd 3669:3

4
---

4 3682:12 3730:5
3743:12,15,21
3778:24
3799:7,12,16,17
3812:12 3853:25
3869:2,5

4.99 3730:12
3731:11 3732:25
3759:4

4:30 3934:11

4:52 3964:7

40 3732:12

400 3669:20

4011 3672:16
3921:14
3922:7,9,10

4012 3672:15
3810:18,20
3811:8,10,11

4013 3672:15
3873:9
3875:11,21,23,2
5

42 3733:7 3759:11

43 3813:2 3834:24
3835:15 3857:6
3861:13

44 3724:19

45 3685:1,8
3727:13 3733:8

3918:21

45-day 3684:19

46 3740:4 3741:9
3743:12 3745:15

468 3833:18
3842:2,5

_____ 5 _____

5 3678:16,22
3709:7 3780:10
3796:2 3813:9
3842:18,19
3843:6 3849:23
3869:12 3878:21
3944:23

5.6 3848:23
3849:3,4 3861:3

50 3868:1,2,4,5

50/50 3932:12

500 3818:19

5021 3672:3
3722:4,17,20,21

50-odd-plus
3684:14

50s 3918:4

50th 3867:23

52.7 3860:19

5289 3779:8

54 3812:25
3834:17

55 3779:24
3927:23
3928:9,22

57 3790:17
3812:22
3834:7,10,15
3835:12,16
3836:6,9
3857:5,7
3861:13

57.2 3834:7

58 3790:13

59 3730:24

3790:17

5th 3791:8

_____ 6 _____

6 3729:11
3732:4,11
3757:4,8,18
3817:20

6,000 3819:2

60 3730:24
3812:25 3834:17
3868:3,7

69 3778:10

6D 3743:19
3744:22

6I 3743:22

_____ 7 _____

7 3676:2 3730:11
3732:4,24
3734:4 3758:25
3783:19 3820:13

7.2 3861:1

700 3670:9

70s 3726:8

767 3669:7

77 3778:6

7D 3743:22
3744:21

7H 3742:14

7-H 3753:13
3787:1

_____ 8 _____

8 3732:4 3733:5
3742:15 3759:7
3766:20
3768:5,7,15
3787:1 3827:15
3960:13

80 3758:3 3833:16
3920:23,24
3932:13

80/20 3727:22

80s 3726:2,7

85 3931:25 3932:2

_____ 9 _____

9 3733:2,14
3738:4,8
3756:15 3759:16
3768:15 3771:8
3789:9 3833:20
3854:1 3857:22
3866:24 3867:16
3883:4 3884:24

9.6 3758:12,15,20

9.99 3731:9,14

9:00 3962:18

9:06 3668:18

90 3825:24
3845:19

90071 3669:4

90s 3726:2,7

95 3783:22
3799:22 3812:23

96 3729:2

99 3731:12
3932:20

9A 3728:12

9-A 3756:25
3759:19 3764:18
3783:2,10
3794:17

9-B 3759:19

9-C 3756:25
3759:20 3764:18
3783:3,10

_____ A _____

a.m 3668:18

A-1 3773:23

A-2 3774:3

ability 3761:22
3762:23 3764:11

3858:10 3965:5

able 3676:9
3744:7 3815:12
3818:13 3824:6
3835:5 3839:7
3862:12 3865:7
3868:4 3882:13
3937:21 3941:6

Ablin 3669:14
3670:4 3671:11
3806:23,25
3807:7,8
3810:3,8,9
3811:7,13
3817:19 3820:12
3823:9 3826:4
3827:14 3830:25
3836:11 3838:24
3843:1,23
3844:1 3868:25
3870:18 3872:5

above-entitled
3668:17

absence 3871:12

absent 3888:19

absolute 3853:6

absolutely
3726:9,23
3737:9 3852:10

academia
3809:2,9

academic 3809:1

accelerate 3675:18

accept 3749:9
3758:18 3762:4
3882:1

acceptable
3942:14 3943:12

accepted 3882:2
3924:22 3930:14
3940:3
3959:16,22
3960:5

access 3723:13
3728:14,17

3738:10 3759:22 3760:2,20 3817:7 3871:15

accord 3923:19,20 3924:22

according 3831:21 3958:21 3960:1,3

account 3708:7 3945:22

accountant 3936:10 3937:18 3940:1 3956:10 3961:7,22,24

accountants 3919:7 3925:25 3955:3 3961:11

accounting 3674:4,6 3675:4,6 3676:5 3918:18 3919:8 3920:4,7,10,11,1 2,14 3921:7 3923:20 3924:4,22 3925:15,19,22 3926:3,10 3930:2,14 3933:12 3954:23 3955:6 3959:17,22 3960:5

Accumulo 3683:14

accurate 3810:24 3817:3 3936:25

accurately 3751:20

achieve 3751:24

achievement 3808:14

acknowledged 3931:3

acknowledges 3934:6

acquisition 3677:7

across 3681:6 3728:8 3826:17 3844:22 3847:10 3848:3,4 3849:19 3887:21 3899:20

act 3856:14 3936:6 3964:5

actions 3874:3

active 3732:2 3758:3,6,8,11

activities 3797:3 3853:21 3954:16 3955:4

actual 3748:2 3839:16 3843:2 3941:20 3942:6,12 3943:21

actually 3680:18 3681:2,5 3683:12,15,20,2 5 3684:6,9,12,13,1 5 3708:7 3725:18 3728:8,25 3732:12 3742:18 3760:13 3769:18 3779:17 3790:12 3792:24 3815:20 3819:7 3832:9 3833:8 3842:25 3853:4 3858:21 3859:16 3863:2 3867:3 3868:17 3873:8 3877:20 3886:25 3929:19

ad 3789:20 3804:7 3823:25 3929:8,11,12 3930:24

add 3825:16,20 3851:19,23 3861:21 3879:20

3885:3

added 3769:10 3793:22 3794:22 3797:1,2 3885:2,3

adding 3769:8

addition 3676:12 3943:22

additional 3708:3 3724:3 3863:14

address 3849:25 3929:6 3930:18 3945:20

addressed 3882:18 3902:17

addressing 3874:21 3963:2

ad-free 3763:14

adjourned 3964:6

adjusted 3897:20 3898:7 3928:17,19,25 3931:7 3946:8,15

adjustment 3876:16 3887:8,12,16 3888:10,21 3889:5,18 3892:19 3898:1 3900:25

administer 3831:19

administering 3738:25

administration 3918:9

admission 3750:20 3768:22 3771:11 3776:23 3778:17 3779:5 3780:15

admit 3679:5 3771:25

admitted 3672:1 3679:8,9 3682:23,24 3722:20,21 3751:10,16 3776:25 3777:2 3778:20,22 3779:9 3811:10,11 3875:24,25 3922:9,10 3949:8,21

admittedly 3832:11 3849:11

admitting 3779:12

adopt 3837:20

adopting 3776:3

adoption 3720:21

ads 3929:15,24 3933:20

ad-supported 3883:11 3884:23 3886:20

advantages 3814:18

advertise 3761:17 3762:1 3763:14,23 3764:6,15

advertisement 3861:3 3929:20

advertisements 3733:24

advertiser 3929:9

advertising 3763:3,11 3848:23 3849:2,5,11 3854:24 3930:25 3961:1

advice 3920:9

advise 3920:8

advisory 3920:5

affect 3753:2

3803:20

affected 3855:8

affiliated 3920:18

affiliation 3918:14

afraid 3851:12

afternoon
3806:22,23
3807:1,2
3816:12,13
3836:22,23,24
3855:23 3872:25
3873:1 3878:10
3893:4,5
3917:12 3923:21
3929:13 3931:13
3939:10

afterwards 3937:5

against 3774:23
3795:14 3874:18

age 3724:1
3773:24
3774:3,4,7,11,18
,22,24
3775:5,9,13
3776:4,15
3777:7,17,20
3778:2,11
3779:19,24
3780:5
3781:20,25
3782:2,8,23
3783:1,9,17,21
3800:3,24
3801:5,14
3818:6 3819:13

ages 3723:23
3776:3 3818:6

aggregators
3881:7

ago 3674:1
3812:21 3853:16
3871:16 3899:3
3919:17

agreed 3800:8,10
3844:23
3861:2,4

3936:11
3937:6,11
3958:17

agreed-upon
3769:5

agreement
3682:17
3709:10,13
3710:14,15,17
3962:24

agreements
3674:14 3682:18
3709:21
3957:1,9

Ah 3857:9

ahead 3718:1
3747:5 3831:18
3833:6 3880:9
3934:10 3936:15
3937:1,3,5,10
3947:19

AICPA 3937:15

air 3681:20 3682:1
3930:5,7,9
3953:7

AKIN 3669:9

Alabama 3918:4

alarm 3801:24

albums 3727:10
3728:15
3760:11,14,16

algorithm 3956:18

allocate 3680:18
3821:7 3849:16
3850:9
3932:7,11
3954:15 3955:4

allocating 3944:12
3954:22 3960:22
3961:1

allocation
3680:12,17
3919:20,24,25
3944:2,25
3945:2 3951:16

3955:25
3956:3,4,9,11,19
3962:5

allow 3728:15
3760:11 3826:12
3828:8 3850:22

allowable 3678:1

allowed 3824:19
3854:3,10
3947:18 3948:1

allows 3680:17
3814:9 3833:18
3941:18

alluded 3744:19

already 3709:24
3728:24 3729:3
3730:13,19
3732:10
3733:17,18
3736:25 3740:19
3756:9,11
3757:12
3759:2,8
3779:8,11
3790:20 3793:18
3794:20,24
3795:12
3822:23,25
3828:16 3832:25
3835:8 3839:25
3841:13
3847:17,18
3848:12 3856:4
3865:11 3937:14
3949:11

altered 3679:21

alternative
3742:24 3821:20
3857:12

alternatives
3744:2 3821:21
3828:4 3847:17

am 3717:10
3718:25 3739:14
3743:24 3758:22
3769:18 3771:11

3812:4 3823:22
3834:14 3840:16
3847:10,16
3848:16,18,19
3849:15,17
3850:11 3853:11
3854:7,25
3857:4 3865:4,7
3868:9 3876:17
3881:24
3893:9,13
3900:20 3901:8
3902:18 3917:14
3927:10 3928:3
3934:20 3939:5
3947:3,18
3950:10 3954:10
3961:21,23
3965:5,7

AM/FM 3787:4
3827:8 3837:13
3838:4,25

ambiguous
3842:15

amended 3679:22
3769:3

America 3669:10
3720:6,7

American 3808:15
3919:23

Americans
3723:23

America's
3717:11

among 3732:6,25
3733:1,5,9
3737:16,18
3741:3 3745:9
3775:5 3779:23
3783:23
3787:10,11
3827:24 3847:17

amount 3740:12
3764:24 3765:4
3766:4 3771:3
3773:7 3828:22
3831:22 3879:13

3929:10

amounts 3764:20
3766:8 3879:17

analyses 3732:1
3747:15 3874:5

analysis 3675:5
3730:3 3740:25
3767:23,25
3784:4 3832:24
3833:1 3858:11
3874:3,5
3876:8,12
3877:1,9,13,15
3878:25
3881:4,10,23
3882:2,3
3885:21 3887:7
3888:5,9
3897:13
3898:3,22
3900:21,23
3942:10 3951:9
3953:1

analyze 3732:22
3733:11 3747:23
3811:22 3840:7
3876:5,8 3878:3

analyzed 3949:17
3950:17
3951:7,10

anchor 3844:24
3845:1,2 3850:1
3852:5,8,16,18
3859:8

Anderson 3807:15
3808:10

Angeles 3669:4

Angstreich
3669:19 3671:3
3673:12,16
3676:1,11
3677:24
3678:3,4,21
3679:4,11,25
3680:2 3682:20
3683:1,2
3685:10

3709:1,2,6
3710:1,11,19,22

Anjan 3670:17

announcements
3813:6

announces
3869:14

annually 3720:16

answer 3726:14
3733:8 3735:18
3736:9 3740:24
3743:13 3753:7
3769:14 3771:20
3797:3 3802:24
3819:16 3820:25
3822:3
3828:8,21,25
3831:25
3847:23,24
3852:3
3853:15,23
3856:2,3 3864:3
3866:11 3868:4
3952:5 3953:9

answered 3749:14
3750:3 3752:22
3800:11 3831:21
3851:3,15
3867:20

answering
3745:15 3752:18
3800:10 3852:7

answers 3728:7
3743:9 3744:1
3753:2 3805:13
3819:17 3826:18
3828:22 3851:4
3863:16 3865:8
3871:4

anthems 3933:9

anticipate
3955:15,16

anticipated
3880:18

antitrust

3874:2,3,4

Antonio 3674:7

anybody 3748:17
3789:13 3831:14
3850:22 3931:21

anybody's 3769:4

anyone 3685:12
3730:19 3733:15
3735:20
3739:5,8 3741:4
3746:21 3902:21

anyplace 3773:11

anything 3760:23
3761:5,22
3762:22 3763:9
3764:1,11
3797:8 3802:1
3831:4 3843:24
3844:3 3855:5
3861:16 3877:9
3888:1 3925:14
3962:11

anyway 3725:7
3891:19 3925:9

anywhere 3844:9
3856:25

apart
3774:18,22,24
3929:24
3930:6,12

apologies 3754:24
3773:19 3779:10
3780:8 3879:22

apologize 3754:24
3867:20

appear 3709:12
3749:6,17,20
3779:3 3781:15
3863:22 3892:6
3921:23

APPEARANCES
3670:1

appeared 3873:4

appears 3771:5

3787:3

appendices
3722:13 3922:2

appendix 3810:25
3843:4,11
3844:3 3853:25
3869:2,5 3873:7

Apple 3900:7
3963:4,6,14

apples 3865:4

application
3821:25 3953:23

applications
3926:11

applied 3873:24
3874:25

apply 3926:15
3940:4 3942:21
3956:16

applying 3844:20

approach 3795:22
3814:9 3821:20
3892:18
3945:4,12,13

approaches
3954:19

appropriate
3769:7 3815:1
3822:8 3823:7

approximately
3727:8 3808:21
3809:23 3818:25
3819:1 3884:21
3885:6,10
3889:23

arbitrary
3680:13,23
3961:3,7,11,19,2
1,23

arbitrate 3958:1

arbitrator 3957:7

Arbitron
3768:6,11

ardent 3845:20

area 3674:8
3681:4 3805:2

areas 3719:9
3808:1 3816:20
3832:11

aren't 3935:18
3954:3

ARENT 3669:23

argue 3937:9

argument 3889:16

arise 3681:10
3944:13

arising 3798:11

arrive 3868:3

article 3879:7,10
3899:9,13,21

articles 3808:22
3919:4,5

artifact 3745:17

artists 3761:7

ASCAP 3874:22

aspects 3803:1
3809:17 3920:14
3922:23 3931:6

assemble 3815:12

asserted 3769:16

assertion 3749:9
3762:4 3794:21

assertions 3767:8

assign 3825:4
3835:21 3858:22
3949:7 3955:17
3956:6,7 3957:3

assigned 3811:23
3858:6 3956:6

assigning 3869:21

assignment
3767:7 3812:6,7
3820:17 3823:15
3876:3,5,10
3922:20 3950:23

3951:4 3956:15

assignments
3834:13

assistance 3813:11

assistant
3674:21,25

Associated
3719:12,20

Association
3669:12 3808:15
3917:20

assume 3749:23
3775:22 3788:16
3842:4 3846:20
3847:8 3851:16
3860:10 3866:3
3880:14 3894:11

assumed 3730:9
3825:9

assuming 3961:23

assumption
3848:7,8
3856:16 3890:10

assumptions
3842:6

assurance 3683:19

attached 3722:13
3724:8 3794:14

attempted
3955:10

attended 3748:18

attention 3680:11
3722:2 3724:6
3734:11 3772:23
3779:14
3823:23,24
3824:1 3869:2
3944:22 3960:12

attitudes 3815:3

attorney 3965:8

attorneys 3710:21

attractive 3816:7

attributable

3849:2 3922:25
3923:15
3928:21,25
3931:7

attribute 3821:8

attributed
3838:20

attributes 3818:11
3821:6 3823:21
3824:9,10
3827:4

audience 3865:25
3866:3 3871:18
3932:1

audio 3719:15
3720:9,21
3721:6,8 3723:9
3728:21 3731:1
3735:21
3736:1,21
3738:21 3739:17
3740:5,9
3743:15 3746:1
3764:3,12
3791:9

audit 3681:1,2,3
3736:7
3920:20,21
3921:1 3923:4
3934:21
3935:6,7
3936:9,13
3937:4,8
3939:22,23
3940:7,8
3942:13

auditable 3681:7

audited 3937:2

auditing 3920:14
3940:3

auditor 3937:8,20
3955:18
3957:4,7

auditors 3925:25

audits 3926:2
3936:11

3939:18,20
3940:1,2,5,23
3941:2,17

Austereo 3720:5

Australia 3720:4

authenticity
3750:13

authored 3768:11
3769:13

authority 3957:23

availability
3760:24
3761:1,6,17
3762:2
3763:4,6,14,23

available 3733:13
3734:25 3735:1
3737:8 3761:11
3788:15
3804:13,19
3894:7

Avenue 3669:3,7

average 3727:19
3812:23,24
3813:3 3826:17
3834:14,15
3840:22,25
3846:15 3848:22
3860:19 3882:8
3884:3,4,6
3886:5
3887:13,14,20
3891:17 3900:17
3901:3 3902:1,5

Averages 3860:25

avid 3728:1

avoid 3745:9
3845:16 3945:3
3955:20 3958:3

avoided
3944:17,21
3958:18

avoids 3845:24
3871:22

award 3808:9

3820:10,11

awards
3808:5,8,13

aware 3710:20
3758:22
3796:5,9
3798:11 3806:5
3823:15 3837:15
3892:20 3895:11
3896:13,21
3900:4,7
3946:25 3949:16

away 3759:14
3803:14 3923:24
3946:19

axis 3884:25

B

bachelor's
3873:17 3918:5

background
3678:1 3807:20
3823:16 3873:16
3918:1

backwards 3925:2
3938:13

bad 3789:2 3864:4

Baker 3947:3

ball 3793:11

Baltimore
3933:5,6,7

Bank 3669:10

banker 3677:11

bankers 3677:10

bankrupt
3921:3,4

banner 3929:12

BARKER 3670:8

BARNETT
3668:21
3673:4,14
3676:10 3677:25
3679:3,8

3682:23 3685:12
3709:1
3710:3,10,19
3717:10,20
3718:2,9,14
3721:21 3722:20
3746:4,6,12,15
3747:3
3748:6,22
3750:24
3751:2,9
3756:12
3769:14,21,24
3770:15
3771:15,18,22
3772:2,7,9,11
3776:25 3778:20
3780:22,25
3781:13
3782:3,9,15,18
3795:7,24
3797:25 3802:22
3805:17
3806:9,11,16,22
3807:4 3810:6
3811:10 3836:16
3843:21
3872:6,9,12,17
3875:2,23
3893:1 3902:21
3917:4 3921:9
3922:9 3934:10
3938:21 3939:1
3948:6,24
3949:3,7,23
3952:5
3962:11,14,17
3963:25

barrel 3959:10

base 3729:16
3735:23
3736:6,20
3758:7,9,11
3775:14,25
3814:4,5,7
3815:20,22
3838:10 3846:3

baseball 3933:4

based 3738:21
3782:23 3788:3
3790:10 3801:17
3820:8 3838:8
3846:22 3848:25
3853:11 3854:7
3856:20 3857:5
3860:14 3864:12
3886:9,11
3887:16
3888:10,25
3889:5,8 3902:6
3923:14
3944:5,8

basic 3845:14
3895:9

basically 3677:17
3781:22
3816:6,8
3818:22 3822:15
3824:3 3832:25
3858:11 3882:13

basis 3777:8,12
3780:6 3797:15
3802:19 3932:21
3960:20,22
3961:1

bearing 3811:5

beauty 3846:14

became 3768:17

become 3675:12
3717:14 3815:23
3830:14 3871:14

becomes 3826:19

becoming 3790:25
3791:23

begin 3746:16
3800:23 3807:5
3814:7 3851:20

beginning 3720:19
3723:20 3795:17
3798:6 3818:24
3842:17 3853:10
3943:5

begins 3708:1
3717:1 3843:6

3917:1 3944:25

begs 3891:18

behalf
3669:2,5,12,17,22 3670:2,7
3798:7 3874:16
3926:22

behavior
3855:8,21
3856:1,17

behaviors 3815:3

behind 3749:18
3768:5 3776:18
3778:24 3780:10
3844:3 3873:8
3875:10 3921:16

Belgium 3807:22

belief 3895:4

believe 3675:22
3752:13 3753:14
3754:16 3758:8
3762:20 3765:15
3769:4 3772:17
3784:19 3789:11
3790:22 3792:2
3798:19 3808:12
3809:22 3810:14
3814:6 3818:25
3826:24 3832:1
3833:2 3851:14
3877:12 3889:7
3894:10,14
3895:25 3896:15
3944:4,16
3945:2 3952:25
3955:10

believed 3849:1

believes 3894:12

belong 3824:12

benchmark
3963:3,8

benefits 3938:14
3949:17 3950:17

Benjamin 3670:21

besides 3835:24

best 3719:10
  3725:15 3727:10
  3808:12 3810:23
  3856:14 3871:6
  3875:13
  3959:11,12,19,2
  3 3960:6 3965:5

bet 3939:3
  3960:15

better 3685:5
  3839:8 3889:25
  3892:1 3930:8
  3932:25 3935:23
  3955:23 3961:25

betting 3939:5

beyond 3675:23
  3677:21 3780:18
  3806:8 3936:6
  3951:25

bias 3744:1
  3745:10 3814:12
  3828:3,5
  3829:12,18

biased 3793:17
  3864:18

biases 3793:14

biggest 3681:18
  3737:20,22
  3740:4

billing 3681:19

bind 3766:20
  3786:7

binder 3678:6
  3679:15 3680:3
  3709:7 3722:2
  3748:6,8,25
  3749:12,13
  3754:4,20
  3756:2,8
  3766:21 3776:18
  3777:22 3786:8
  3791:2 3793:1
  3810:14 3811:15
  3812:13 3813:10
  3817:21 3820:14

3827:16 3833:21
  3835:2 3836:15
  3844:2 3869:3
  3873:7
  3921:12,13

binders 3872:15

binding 3955:19

bit 3732:15 3733:1
  3734:17 3812:13
  3813:8
  3830:9,16
  3834:1 3853:19
  3861:19 3863:24
  3866:13 3925:21

black 3678:25
  3722:2 3921:12

Blackburn 3779:9
  3877:12,14
  3879:6 3895:21
  3897:15,23
  3898:24 3899:10

Blackburn's
  3876:6,20,24
  3877:24
  3878:2,22

blame 3679:2

blank 3825:9

blast 3929:15

block 3861:24

blue 3737:21
  3933:8

BMI 3874:22

board 3668:2
  3920:7,10,11,12,
  22

boards 3919:8,11
  3920:5,6,9,15,20
  ,21,23

bones 3851:9

Bonnie 3670:24
  3965:3

book 3793:1
  3808:23
  3919:18,19

3920:2
  3936:10,14
  3937:13,14,15,2
  1

books 3673:6
  3808:23 3919:4

born 3896:8

bother 3779:12
  3848:1

bottom 3709:14
  3772:24 3790:6
  3830:8 3868:20
  3928:13 3959:10

bought 3900:4

BOUND 3685:16
  3711:2 3902:25

box 3854:18
  3871:24,25

break 3685:6
  3774:18 3776:14

breakdown
  3775:13 3777:7
  3778:2 3779:19
  3857:20

breakdowns
  3777:17

breaking 3774:21

breakout 3783:2

bridge 3809:8

brief 3925:10

briefly 3674:2
  3675:1 3680:14
  3683:7,10
  3747:11 3797:24
  3808:18 3832:13
  3873:15 3925:17

bring 3710:18
  3762:7 3934:25
  3938:3

brings 3812:24
  3925:5 3934:24
  3935:1,4

broad

3719:14,18,24
  3721:5 3723:13
  3814:4,7 3846:3

broadcast 3721:8
  3740:11
  3925:12,15,20
  3926:13 3928:14
  3929:25
  3930:5,11
  3933:17,21

broadcaster
  3841:16
  3929:8,22
  3937:2 3943:25

broadcasters
  3669:12 3670:2
  3824:3 3893:16
  3917:20 3925:22
  3926:23
  3927:10,13
  3942:19
  3943:23,24
  3951:18,20
  3954:11 3956:17

broadly 3720:12

broken 3737:7

brought 3813:24

BRUCE 3669:6,13

Bryant 3669:10
  3796:3

budget 3675:5
  3859:15

build 3676:21
  3928:12

bullet 3680:7
  3683:11 3796:13

bullets 3683:6
  3831:2

bundle 3959:3

bundled 3951:18
  3953:3

bundling 3929:8
  3930:2 3959:5

business

3676:4,16
3727:24 3925:21
3926:7,9
3954:16 3955:4

businesses
3676:21 3677:16
3727:25 3896:8

button 3822:16

buy 3787:19,24
3788:1,16

buyer 3942:16
3943:2 3956:2

buyers
3943:6,10,12,16,
21

buying 3740:18
3788:6,7,9,13

C
---

calculate 3684:3
3784:13 3798:20
3800:16 3878:14
3882:13 3902:11

calculated
3784:7,16,21,22
3798:24 3897:15
3898:20 3901:24
3902:4

calculating
3892:18

calculation
3784:9,20
3900:24 3956:12

calculations
3897:25

calculator
3800:18

California 3669:4
3873:18 3919:2

Cambridge
3809:7

Canada
3933:8,10,14,16

cancel 3793:16

3794:4 3795:1

cancellable
3793:13,22
3794:22 3797:18

cancellableness
3795:2

cancellation
3794:8,14

cannibalization
3876:9

cap 3789:24

capable 3935:23

Capital 3670:24

capricious
3961:24 3962:7

captured 3683:20
3824:18

capturing 3850:12

car 3855:23

care 3924:8

career
3808:3,14,20
3809:4,13,17
3920:1

careful 3821:11
3827:5 3853:19
3866:13

carefully 3845:4
3864:24

Carnegie 3918:7,8

case 3717:8
3728:2 3730:19
3734:15 3744:5
3758:8 3767:10
3769:10 3784:18
3789:8
3801:20,23
3814:5 3816:1
3829:5,9 3832:6
3839:11 3877:5
3885:18 3886:17
3896:14 3898:25
3921:20
3926:20,24

3932:24
3933:1,25
3934:1 3939:19
3947:2

cases 3744:4
3790:21 3801:21
3809:21,23,25
3813:16 3832:4
3874:10 3923:1
3951:19

cash 3929:10
3930:25

cashed 3816:9

categorical 3829:8

categories 3740:23
3753:7 3787:2
3821:13,15,16
3824:15 3825:5
3829:4 3830:19
3854:3,11
3858:7 3862:10
3864:20,25
3868:16,20
3878:5 3899:21

category
3730:10,20
3812:1 3825:1
3828:9 3829:24
3847:22 3854:16
3858:2 3861:7
3862:15,16

cause 3680:25

caution 3684:23

CD 3677:15

CDs 3727:9
3735:12 3737:24
3739:14
3740:12,16,18,1
9,20,22 3787:24
3788:1,7,14
3803:15,20
3804:2 3928:16

cease 3738:22

ceased 3785:5

Celine

3933:14,19,25

cell 3723:24

Center 3754:7
3755:4,7

Center's 3754:8

cents 3731:12
3893:7,9,12,17
3894:20,21

certain 3744:4
3767:8,9
3771:11 3794:12
3811:23 3821:11
3845:18 3871:3
3889:18 3923:1
3950:10

certainly
3726:16,19
3727:23 3736:22
3737:8
3745:11,20
3751:23 3753:4
3761:15 3770:11
3777:19 3794:16
3859:9 3870:14
3888:15 3897:13
3901:5 3927:15
3940:3
3942:3,15
3946:12,15
3948:6 3950:5
3952:15
3954:7,8 3955:6

certainty 3946:22

certificate 3685:14
3902:23 3965:1

certification
3938:10 3939:7

certified 3901:8
3937:18,20

certify 3965:3

cetera 3819:18
3824:5 3831:15
3858:21 3870:7

CFO 3673:24

chain 3793:11

challenge 3744:9

change 3673:25
3736:20 3783:18
3793:18,19,20
3803:24
3804:1,4,8,14,25
3831:4 3887:2
3923:4
3946:20,21,24

changed 3708:22
3768:20 3794:23
3804:19 3831:24

changes 3685:4
3793:19
3878:16,18

changing
3793:12,21

channel 3682:3
3720:2 3770:23
3773:3

channels 3721:11

chapter
3919:17,20,22
3941:4,9

chapters 3808:23

characteristics
3818:16 3819:14
3839:18

characterization
3812:20

chart 3757:8
3770:21 3790:7
3878:17 3883:18
3885:5

charts 3754:25
3756:20 3759:14

check 3750:16
3773:9 3795:19
3846:12
3854:3,4,11,12
3889:21
3890:1,16

checked 3833:6
3871:24

checks 3683:19
3684:8 3854:18

Chicago
3918:11,15

CHIEF 3668:21
3673:4,14
3676:10 3677:25
3679:3,8
3682:23 3685:12
3709:1
3710:3,10,19
3717:10,20
3718:2,9,14
3721:21 3722:20
3746:4,6,12,15
3747:3
3748:6,22
3750:24
3751:2,9
3756:12
3769:14,21,24
3770:15
3771:15,18,22
3772:2,7,9,11
3776:25 3778:20
3780:22,25
3781:13
3782:3,9,15,18
3795:7,24
3797:25 3802:22
3805:17
3806:9,11,16,22
3807:4 3810:6
3811:10 3836:16
3843:21
3872:6,9,12,17
3875:2,23
3893:1 3902:21
3917:4 3921:9
3922:9 3934:10
3938:21 3939:1
3948:6,24
3949:3,7,23
3952:5
3962:11,14,17
3963:25

choice 3745:5
3751:25 3752:4
3765:9 3793:5

3823:5 3830:4
3847:18
3848:8,13
3856:9
3886:20,22
3924:14 3959:12

choices 3742:24
3744:21 3745:1
3753:6 3765:18
3785:25 3792:25
3793:2 3822:23
3823:3 3828:17
3829:1
3847:9,17
3856:4,12

choking 3878:24

choose
3753:16,17,21
3754:1 3755:16
3814:1 3821:19
3886:25 3924:3
3959:23

chooses 3737:4

choosing 3884:11

chose 3728:16
3737:24
3738:3,14
3760:12,17
3784:3 3842:11

Choudhury
3670:17 3671:4
3675:22 3677:20
3679:7 3682:22
3708:2,25
3709:23
3710:1,5,11,16

Christian 3870:10

Christopher
3917:19

chunk 3724:19
3732:18

CIA 3937:19

circumstances
3772:3

cited 3754:9

3755:4 3899:10

cites 3879:6

claim 3870:13
3878:2

claiming 3879:7

clarification
3821:1

class 3874:3

classical 3840:24
3856:15 3865:10
3933:13

classroom 3933:2

clean 3946:6

clear 3682:8
3720:2 3734:2
3739:8 3748:16
3757:18 3758:10
3780:17 3835:10
3838:17 3898:6
3926:19 3939:19
3946:4

clearing 3683:8

clearly 3677:21
3734:6 3844:21
3852:17 3942:25

clerk 3949:3

clever 3932:3

clients 3719:16,18
3784:18 3873:25

clock 3746:7

close 3741:21
3859:10,25
3890:6 3951:13

closed 3677:5
3710:25 3767:11

closed-ended
3753:8,10,22
3755:23

closely 3761:13
3795:20

closer 3791:20
3917:15,16

CMA 3937:17

code 3743:12,15
3744:13

codes 3743:10
3749:14

coding 3814:20
3871:13

coextensive
3881:13

cofounder
3718:25

Coining 3795:3

Colin 3670:17

colleagues 3746:8
3796:3

collect 3816:8
3933:18

collection 3738:19
3814:19

collections 3674:7
3790:16

column 3791:19
3792:12

columns 3867:21

combination
3740:3

combined 3730:22
3733:3
3824:6,10
3861:13 3868:20

comes 3676:8
3684:5 3743:21
3749:23 3836:6
3863:15 3956:18

comfortable
3819:22 3824:23
3832:18 3845:4
3850:25 3851:4
3853:4,5

coming 3675:16
3676:23 3740:14
3742:3 3771:12
3776:4 3782:14

3805:24,25
3930:25

comma 3678:23

commensurate
3820:20 3821:7

comments
3710:20 3874:21

commercial
3812:2 3823:23
3827:9 3838:3
3839:15 3846:22
3853:11
3854:14,24
3870:2 3874:4
3877:19
3879:21,25
3893:7 3894:2
3895:5

Commission
3965:15

Committee 3670:3
3874:17

committees
3919:7
3920:8,20,21
3921:1

common 3733:8
3821:2 3901:1

communication
3897:9

companies
3719:23,25
3720:10,12
3920:16 3921:2
3942:1 3952:10

company 3670:24
3675:7 3677:3,4
3719:10 3920:12
3932:9,10

company's
3954:16

compare 3682:16
3865:4 3897:7
3945:11

compared 3765:8

3861:12 3880:12
3883:20

compares 3896:22

comparing
3762:10
3895:21,25

comparison
3721:7 3838:10
3886:9,12,23
3887:23 3897:10

Comparisons
3672:12

Compass
3873:21,23

competing
3893:24

competition
3860:8,9,10
3874:2 3892:11
3897:21 3898:8

competitive
3877:8
3893:20,21
3898:5

complete 3684:2
3756:10
3800:4,14,21
3801:10,19
3811:1 3812:5,7
3850:23 3890:11

completed
3774:13 3800:11
3832:23

completely 3681:8

completes 3887:11

completion
3833:3,16

complex 3820:8
3822:20

complicated
3683:23 3685:7
3734:17

complies 3777:24

component

3835:17,22

components
3834:13,20
3835:14 3836:4
3849:15
3863:9,16,17,20

comports 3850:11

compose 3834:24

composed 3835:21
3849:14

composition
3862:23 3863:18
3865:13

compounds
3867:11

comprehension
3744:14
3795:16,19

computer 3918:16

conceivably
3835:21

concentrate
3719:9

concentrated
3778:10

concentration
3778:3

concern 3745:5,12

concerned
3745:14 3793:8
3880:24

concerning
3876:23 3882:17

concerts 3929:16

conclude 3741:25
3758:25 3878:20

conclusion
3785:3,9,11
3790:6
3803:20,24,25
3812:16 3813:1
3897:22

conclusions

8

copies 3748:7

copy 3756:7
3779:3,12
3810:20 3875:11
3921:23
3922:4,16,18,19

COPYRIGHT
3668:2,20

Cordick 3931:25
3932:6,8,10,14,1
6,19,20 3934:1

core 3675:6

corner 3709:15

Cornerstone
3813:14
3816:17,21,25
3817:4,5,7
3831:11

corporate
3919:11,13

correct
3708:8,18,23
3742:25 3743:24
3747:24
3749:15,21
3750:9
3753:17,25
3754:10
3755:5,9
3756:17,22
3757:2,10,20,24,
25 3758:12,25
3759:11,23
3760:1,3,6,8,9,1
2,17,21,24,25
3761:3,4,7,8,11,
19
3763:1,5,11,12,2
0,21
3764:3,4,13,16,2
0,21 3767:4
3768:2 3770:3
3771:4
3773:12,13,25
3774:4,8,12,25
3775:6,10,15,21

3776:4,8,15,19
3777:8,13,17
3778:6,14
3780:6,13
3782:2,21
3783:13,14,25
3785:13,17
3787:9,16,21
3788:1
3789:7,17,22
3790:2 3796:7
3798:14 3801:6
3817:16 3837:18
3838:14,20,21
3839:18 3841:8
3844:13 3848:23
3858:15 3859:3
3868:22 3873:13
3875:14 3880:2
3881:15 3882:21
3893:17
3894:10,21,22,2
5
3895:8,13,16,17,
19,23 3896:3,19
3897:11,17,21
3898:9
3899:11,12,18,2
4
3900:2,5,8,12,18
3901:4,7,10,13,1
6,22,23
3902:2,3,5,9,12
3923:18 3929:2
3939:20,23
3941:22
3942:8,14
3944:6,13,17
3945:4,14,18
3946:9,10
3950:23 3952:20
3953:1
3954:15,16,18,2
0,21,23 3955:1,5
3956:22 3957:2
3958:12
3961:22,23
3962:4,8
3963:20

corrected 3678:18

corrections
3678:14

correctly 3743:13
3831:23

correlate 3725:25

corresponds
3963:9

corroborative
3963:3

cost 3919:19,20,24
3925:8 3931:13
3936:18 3937:4
3958:19

costs 3730:7
3822:14,15
3884:2 3919:25
3924:9 3950:17
3955:20

counsel 3673:15
3709:5 3717:23
3724:22 3742:11
3747:7 3751:11
3752:10 3792:8
3796:13,19
3798:1 3806:24
3836:20 3845:12
3868:24 3872:23
3893:2 3917:10
3924:15 3939:8
3941:5 3947:18
3949:13
3950:1,8,10
3955:15 3965:8

counsel's 3804:1
3958:13

count 3800:25
3801:2
3876:7,25

counted 3861:7

country 3719:21
3724:2 3807:22
3856:25
3870:7,9
3871:15

couple 3674:1
3708:3 3749:3
3785:24 3788:17
3795:13 3810:25
3822:9 3838:13
3845:11 3853:7
3855:17 3869:1
3902:19
3929:12,15
3936:20 3942:4
3960:16

course 3681:1
3719:18 3720:7
3735:17 3738:20
3749:8 3763:3
3775:25 3783:5
3786:13
3801:20,23
3802:25 3808:20
3814:14,22
3817:11,25
3819:12 3821:10
3824:17 3827:9
3828:15 3833:18
3835:7,18,20
3839:20 3849:19
3858:22 3867:25
3870:17 3871:21
3886:13 3957:25

court 3685:11
3737:15,16
3750:7 3753:14
3809:24
3873:15,22
3878:12 3882:23
3965:1

courtroom 3683:9
3684:24 3931:21

Court's 3781:7

cover 3892:23

covering 3888:16

CPA 3923:5,7,8
3925:2,4,5
3934:16,19,24
3935:4,6
3936:10,14
3937:23 3938:14

3941:21 3942:7
3943:8,9,17
3955:18 3957:4

CPAs 3926:1
3934:22
3937:5,15

CPA's 3937:14

crank 3956:17

CRB 3877:19
3880:6 3881:6

create 3684:14

creation 3751:20

credit 3674:7

critical 3752:1,6

criticize 3895:21

critique
3881:22,24

cross 3671:2
3720:5 3747:19
3750:8 3793:1
3938:18

cross-examination
3747:7 3802:5
3806:8 3836:20
3893:2 3939:8

cruise 3929:20

cumulative
3780:19
3782:4,16
3864:16 3941:14

curated 3761:2,6

curiosity 3768:14

curious 3736:3

current 3673:23
3708:21,22
3731:10 3733:22
3893:6,15
3894:3 3895:11
3900:10 3945:3

currently 3734:1
3757:19,21
3758:15

customer 3775:25

customers
3761:19 3775:22

cut 3850:22
3851:7

CV 3811:3
3873:11,20

Cynthia 3670:19

D

D.C 3668:4,14
3669:15,21,24
3670:5,9

damages 3874:5,6

data 3676:22
3683:14,17,21
3684:1,2
3723:25
3737:5,14
3738:19
3747:15,17,22
3748:2,9,11
3749:4,17,20
3750:5,18
3751:13
3774:10,24
3783:8
3784:10,17,23
3797:6 3804:23
3809:14 3813:24
3814:19,20
3817:13 3844:3
3857:21
3859:9,10,11
3877:13,24
3881:19
3887:3,5
3891:10 3894:7

dataset 3774:10

date
3724:13,17,20
3725:3,7,24
3726:3 3808:20
3809:22

dated 3796:2

dates 3880:15

daughter's
3935:20

David 3668:22
3670:7 3673:20
3896:14

Davis 3873:18

day 3675:19
3681:12 3684:21
3719:12 3797:5

days 3681:12,21
3685:1,8
3931:20

deadline 3769:5

deal 3677:12
3684:21 3776:10
3813:20 3867:7
3924:12 3932:22
3933:23 3934:4
3959:1,4

deals 3684:18

dealt 3744:22
3931:4

decade 3808:9

decades 3805:2

decide 3812:5
3820:22 3823:12
3856:21 3857:7
3937:1

decided 3731:16
3812:7 3820:25
3835:24

decision 3731:16
3855:16 3865:11
3958:18

decisions
3765:5,18,21
3803:2

declaration
3810:1 3811:5
3875:18

decomposed
3862:18

decomposition

3866:17,22

decrees 3874:22

dedicated 3682:1

defer 3924:16

define 3759:25
3844:9 3955:24
3956:1

defined 3757:21
3758:8 3818:3
3834:9 3835:9
3844:13 3852:17
3926:24 3940:9
3944:9 3951:15

definitely 3834:13
3858:3

definition
3765:13,14
3823:19 3844:20
3956:8

definitions
3672:12 3682:16

defunct 3676:18

degree 3718:18
3807:21 3873:17
3918:5,9

degrees 3718:8,17
3807:24

deliberately
3848:10

delineation
3811:25

deliver 3821:6

delivered 3810:1

delivers 3823:4
3850:10

demand 3830:1

demographic
3785:19 3816:2
3818:14,16
3844:3,6

demographically
3815:14 3833:10

demographics

3838:7,8,19

demonstrate 3898:22

demonstration 3897:24

demonstrative 3757:8 3762:7 3799:20,21 3811:15 3812:13 3813:10 3817:21 3820:14 3827:16 3833:21,23 3835:2 3867:16 3878:9 3882:16,20,24 3883:2 3922:15

demonstratives 3717:7 3723:2 3756:19

depend 3726:18

dependent 3726:14 3829:14

depending 3685:2

depends 3765:12 3861:10 3870:24

depict 3833:23

depicted 3882:24

deposition 3809:24

derives 3785:11

describe 3675:1 3683:7,10 3719:7 3723:15 3727:22 3759:4 3807:19 3808:18 3809:10 3811:18 3869:9 3870:11,16 3873:15 3882:6 3899:21

described 3729:6 3730:7 3757:14 3763:19 3766:15 3788:3 3797:9 3817:24 3827:23

describes 3676:3

describing 3708:9 3764:10 3847:7,9

description 3759:18

design 3751:19 3752:20 3753:1 3754:7 3811:21 3813:8 3814:10 3816:17 3831:18

designated 3748:2 3750:14 3756:8

designed 3767:25 3809:16 3820:17 3849:17

designing 3809:10 3813:11 3818:9 3827:17

desirable 3885:15,17

desk 3722:3

Despite 3957:2

detail 3851:13 3871:6 3880:9 3882:15,17 3934:17

detailed 3882:4,6,11 3884:9

details 3724:3 3819:1 3844:6 3923:11

determination 3668:7 3844:22 3955:19 3957:5,6

determine 3681:23 3682:5 3683:15 3781:16 3818:20 3821:13 3839:17 3840:6 3841:19 3857:22

determined

3818:7 3889:17

determines 3825:2

developing 3887:12

development 3720:20

developments 3806:4

deviation 3834:11

deviations 3844:23

device 3720:21

devices 3764:12

devise 3682:4

diagram 3756:20

dial 3672:8 3720:14,15 3721:3 3766:14 3768:17 3775:10 3776:13 3777:16 3778:14 3779:1 3780:12 3781:6,10,22 3782:22 3791:12 3839:6

dialed 3723:24

Diamond 3827:25

dictionary 3962:2

die 3957:5

Diego 3919:2

differ 3784:2 3847:3 3958:15

difference 3730:1 3793:22,23,24 3821:14 3845:5 3859:13 3865:1 3877:16 3891:9,10

differences 3680:24 3753:1 3775:9 3840:16 3841:9 3844:21 3848:3,4

different 3676:25 3677:15 3680:22 3683:21 3721:8,12 3723:11,14 3743:4 3744:21 3765:10 3790:5 3806:1 3824:9 3825:5 3840:3,4,11 3841:10,12 3842:20,23 3843:18 3847:4,22,24,25 3849:9,12,15 3858:25 3862:11,14,25 3865:3,5 3866:14 3870:15 3877:17,20 3878:5 3882:12 3886:19,22 3888:8 3889:1,22 3890:9,10,21 3891:24,25 3896:12 3898:25 3920:23,24 3924:2 3926:20 3939:22 3940:2 3953:8

difficult 3826:19 3945:17

difficulties 3944:12,14,15,1 6,20

digital 3668:9 3676:21 3677:15 3720:12,21 3723:14 3727:9,10,15 3738:8 3871:22

diligence 3677:19

Dion 3933:14,19,25

DIR 3671:2

direct 3673:15

3674:10
3675:23,25
3676:2,13
3682:18 3684:18
3717:18,23
3734:11
3767:3,10
3772:22 3806:24
3817:11,20
3869:2 3872:23
3876:6 3883:8
3917:10
3947:1,10,15
3952:1 3953:20

direction
3847:23,24

directional
3765:24

directly 3726:10
3764:22 3765:2
3766:3 3812:9
3814:20

director 3809:6

directors 3919:13
3920:15

disadvantages
3764:25

disagree 3682:7
3897:10

disbarred 3938:9

disc 3813:6 3824:4
3829:9 3845:6
3865:2

discovered
3745:18 3866:21

discovery 3747:21
3784:18 3796:7
3836:3

discretion 3962:6

discrimination
3891:13,19,22
3892:2

discriminatory
3891:23

discuss 3767:7

discussed 3793:18
3797:12
3926:7,14,17

discussion 3844:4
3876:21,24
3891:20 3894:2

discussions
3900:14
3926:16,21

**disproportionatel
y** 3845:17

disputes 3680:13
3874:4

disputing 3934:20

disqualified
3819:7
3846:8,12

disqualifier
3854:21

distinguish 3873:3

distinguishable
3871:5

distinguishing
3879:24

distribute 3864:12

distribution
3882:12 3884:9
3892:4,7 3896:6

disutility
3852:19,25

dividing 3792:17

DJ 3823:25

Docket 3668:6

doctors 3871:3

document 3678:7
3679:16 3680:6
3682:14,15
3722:5 3750:22
3768:5
3769:1,3,12
3770:8
3779:7,14

3781:14 3782:13
3792:15 3810:17
3875:10,17
3923:4
3948:13,21
3950:16,19

documentation
3818:10 3823:16
3824:2 3838:12

documents
3754:17 3762:14
3783:4 3902:19
3937:7 3947:23
3948:16,21
3950:2,9,11,12
3952:14

D-O-I-M 3807:12

DOJ 3874:21

dollar 3764:20
3766:8 3771:3
3773:7 3884:14
3927:24

dollars 3727:17
3859:20 3883:23
3936:20

dominant 3861:14

dominates 3846:6

Dominique
3806:18 3807:12

**D-O-M-I-N-I-Q-
U-E** 3807:13

DOMINQUE
3671:10

donating 3717:13

done 3719:17
3720:18 3723:20
3724:12 3747:16
3750:18 3766:13
3769:21 3774:23
3776:14 3781:5
3782:7,23
3798:6
3809:2,15,22,25
3820:4 3821:24
3832:20

3838:14,15
3853:3 3858:11
3862:5
3864:9,22
3867:2 3871:6
3901:5 3919:8
3923:18
3924:20,21
3929:5
3930:4,16
3931:9 3934:8
3957:24

double 3960:18

double-blind
3814:10,14

doubt 3820:6
3889:22

Doug 3962:21

downloads 3727:9
3735:13 3737:25
3739:15
3740:13,17,19,2
1,23 3787:20
3788:7,14
3804:2

downside
3945:12,13

dozen 3918:22
3932:1

Dr 3779:9 3836:24
3837:5 3842:8
3855:4
3872:7,11,25
3874:25
3875:2,7
3876:3,6,11,16,2
0,24
3877:12,14,24
3878:2,22
3879:6
3881:18,19,20,2
1,22,25
3882:8,18
3884:10,16
3885:5 3886:1
3887:3,4,5,7,8,1
1,17,21

3888:3,5,7,9,19
3889:17,20
3890:5
3892:15,16,18,2
3 3893:4
3895:21
3897:15,23
3898:24 3899:10
3900:15,19,24
3901:15 3963:19

draft 3817:2
3842:8

drafted 3794:11
3946:11,25
3949:15 3950:20
3952:17

drafting
3947:10,16
3949:25 3952:8

dramatically
3725:18 3744:14

draw 3680:11
3835:5 3871:10
3935:11,12,15
3937:13

drive 3681:17
3717:12

driven 3892:10

drop 3934:18

dropped 3725:18
3825:20

due 3677:18
3678:24

duly 3673:9
3717:3 3806:19
3872:20 3917:7

during 3681:24
3779:9 3802:4
3805:21 3919:3

_____E_____

Ear 3720:25
3721:1

earlier 3678:9
3803:5 3805:21

3835:9 3865:8
3931:12

earliest 3805:4

early 3832:16
3872:13

earned 3808:8
3918:19

easier 3717:8
3756:2 3826:24
3863:25

easiest 3725:14
3867:24

easily 3824:11
3846:7 3871:5

east 3918:23

easy 3681:3
3757:6 3821:9
3842:9 3850:3

EBIN 3669:9

economic 3873:24
3874:7,11
3889:10 3895:9
3919:23

economics
3807:23 3856:18
3873:17,19,25
3874:25
3918:6,10,16
3921:6

economist 3885:12
3901:13
3932:15,21
3935:18

economy 3680:20

Edison 3718:22,24
3719:1,4 3766:9
3768:6 3778:8
3782:6 3796:6

edition 3940:16,18
3941:4,7

editions 3940:16

editor 3940:11

educate 3919:13

education
3918:2,10,12
3919:12

educational
3670:7 3807:19
3873:16

effect 3755:17
3830:7,14
3957:10

effective 3897:21
3898:8

effects 3745:12

efficiency 3871:12

efficient 3814:19

effort 3819:15

EGIN 3896:25

either 3756:1
3757:13 3780:18
3809:15,24
3816:24 3825:7
3829:12 3851:6
3854:15 3893:20
3950:5 3952:22

elaborate 3834:18

election
3719:12,13

elections 3719:13

electronic 3748:7
3750:16

electronically
3748:8

element 3826:15
3829:23 3857:19
3861:11 3959:3

elements 3812:18
3813:3
3823:11,12
3824:19 3827:22
3834:23 3838:2
3839:12
3840:13,18
3861:6,17,21,22
3862:25

Eleven 3800:22

ELGIN 3670:4

eliminated 3734:4
3738:8,11,12
3742:9 3789:11

ellipsis 3734:15

else 3752:12
3783:16 3835:24
3844:4 3845:25
3847:24 3850:6
3861:16 3931:21
3953:17 3963:6

elsewhere 3720:6
3773:9

e-mail 3929:14

emeritus 3918:19

empirically
3809:14

employed
3807:3,14
3965:6,9

employee 3965:8

employees
3795:18

endless 3931:14

engaged 3797:2

engagement
3938:7

English 3828:13
3844:12

enjoy 3836:2
3848:11 3850:11

ensure 3827:18
3831:20 3842:15

ensuring 3752:6

entail 3797:17

enter 3877:3

entered 3814:20
3895:6,12

entertainment
3849:4

entertainment-

oriented 3727:25

entice 3763:15

entire 3675:7 3721:5 3728:15 3760:11,14,16 3783:24 3871:18 3920:1

entirely 3748:15

entities 3897:9

entitled 3768:7

entity 3897:8

entry 3825:9 3876:7,21,25 3877:3 3935:16 3936:2

envelope 3946:23

Ephemeral 3668:8

equal 3889:23

equals 3825:13

equity 3677:4

equivalent 3845:22 3938:8

error 3783:18,22 3784:20 3798:16,20,24 3799:3,6,17 3814:21 3902:4,11

errors 3683:24,25 3871:23 3885:21

E-R-S-E-N 3673:20

especially 3746:2

ESQUIRE 3669:3,6,9,13,14 ,18,19,23 3670:4,7

essential 3925:7

essentially 3742:5 3837:12 3882:3 3920:1 3951:16

establish 3942:24

established 3802:14 3856:1

estimate 3727:11 3812:17 3888:20,25 3902:13 3936:22,24,25 3959:11,12,19,2 3 3960:6

estimated 3901:21,24 3902:1

estimates 3835:11 3855:7 3887:17 3888:3,10 3889:4 3890:7,15 3902:9,12

estimating 3876:13

et 3819:18 3824:5 3831:15 3858:20 3870:7

ethics 3935:4,6 3938:6

Europe 3720:6

evaluate 3797:7 3820:23

evaluated 3876:14

EVANS 3669:18

evening 3750:16

event 3813:6

events 3861:1

everybody 3678:20 3728:23 3844:24,25 3858:5 3864:23 3866:1 3871:15 3922:16 3942:21

everyone 3728:24 3729:1 3735:8,15 3737:18 3794:19

3884:6 3922:18,19

everything 3676:19 3677:13 3708:15 3728:11 3817:1 3831:20 3850:5 3859:19

evidence 3672:1 3679:6,10 3682:21,25 3710:21 3722:18,22 3748:13,17 3750:20 3751:16 3756:10,11 3777:2 3778:22 3779:8,11 3811:8,12 3825:22 3852:5 3876:1 3881:9 3922:11 3943:11 3948:22 3959:7,9 3963:3

exact 3685:3 3725:17 3773:24 3853:22,23 3857:20 3865:19

exactly 3743:6 3748:16 3753:24,25 3758:17 3815:8 3819:23 3825:13 3826:2 3832:9 3859:14 3867:2 3869:7,13 3936:18,19

exam 3805:21 3918:25 3935:6

EXAMINATION 3671:2,6,9,12,15 3673:15 3709:5 3717:23 3806:24 3868:24 3872:23 3917:10

examine 3727:3

examined 3881:20

examining

3747:16

example 3681:17 3747:20 3750:6 3774:21 3776:17,21 3777:4,21 3778:1 3787:1 3797:6,14 3818:25 3821:12,22 3824:11 3827:23 3828:2,10 3840:23 3846:5 3850:5 3853:2 3855:22 3856:20 3858:1 3861:11 3862:11,20 3865:2 3868:8 3871:1,2 3883:15 3888:12 3896:9 3899:23 3919:8 3927:7 3929:17 3930:19 3931:16 3936:16

examples 3728:18 3753:10 3828:2 3847:8 3854:15 3870:4,6,14 3930:20

exams 3937:20

except 3757:1 3806:17 3872:18

exceptionally 3762:19

exceptions 3850:25

exchange 3769:6 3815:14

exclude 3729:20 3926:25

excluded 3729:17 3927:1

excluding 3732:9

excuse 3724:22 3742:7 3807:4 3809:16 3843:21

3924:9 3941:3	existing 3789:20 3790:15 3880:25	3734:12 3852:2 3857:23 3878:11 3925:17 3961:10	fair 3680:12,16 3775:17 3776:8 3844:4 3880:20,21 3894:6,11 3901:1 3924:21 3930:13 3937:7 3948:9 3950:15 3955:7
excused 3806:13 3872:9	exists 3955:1	express 3862:13	
execution 3821:10	exit 3719:10,19	expresses 3896:21	
executive 3809:5 3873:20 3919:12	expand 3924:6,13	expressing 3752:2	
executives 3919:13	expanded 3740:8	extensively 3720:9	
exercise 3851:20 3852:25 3856:10	expect 3749:19 3771:13 3804:14 3830:22 3833:7 3854:2 3885:15	extent 3858:10 3957:22	fairly 3680:23 3683:23 3834:16 3923:19
exhaustive 3870:14	expected 3950:8	extreme 3845:19 3932:25 3933:1,25 3934:1	faith 3819:15 3923:20 3930:14
exhibit 3672:3,5,6,7,8,11,12,15,16 3679:5,9 3680:1 3682:21,24 3722:4,17,21 3748:3,4,24 3749:18 3751:7,8,15 3756:8 3768:6,23 3769:2,3,10,16 3770:8 3771:7,9 3776:23 3777:1 3778:18,21 3779:1,8,17 3780:12,16 3810:18,20 3811:8,11 3873:8 3875:11,21,23,25 3921:14 3922:7,10,15	experience 3745:25 3788:4 3790:11 3794:10 3801:17 3802:10 3803:18 3805:12 3808:25 3809:10 3813:20 3918:2 3919:9,10 3955:15		fake 3819:18
	experiencing 3847:6	extremely 3729:23 3741:8	falls 3774:12
	experiment 3901:15	F	false 3710:12,17
		faced 3765:5	familiar 3710:6 3761:9 3766:5 3767:19
	expert 3721:18 3781:4 3802:19 3809:21 3810:4 3865:25 3874:7,11,12,14,25 3896:13 3901:6,8 3921:6 3923:6,8,9 3925:3,4,6,12,25 3934:5,19,21,22,23,25 3937:12 3938:5 3940:15	facilitate 3806:6	familiarity 3818:2
		fact 3741:9,21 3747:14 3767:6 3781:6 3783:12 3816:3 3833:6 3836:1 3841:10 3844:2 3846:2 3847:25 3848:1 3851:22 3861:15 3871:11 3881:4 3884:6 3889:23 3890:23 3891:5 3897:12,22 3898:1 3933:2 3937:9 3953:6 3955:3 3957:2	fans 3845:20,21
			FASB 3920:9
			fast 3680:19
			faulty 3929:6
			favor 3841:14 3847:11
exhibits 3672:1 3748:12 3750:14,15 3754:17 3769:8,10 3780:20,21	expertise 3813:21 3871:2		favorite 3826:21,23 3827:2,3 3832:2 3839:21 3841:1 3842:6 3847:19 3856:3 3860:12 3865:12,17 3869:15
	experts 3866:3	factor 3745:21 3830:2	
	expiration 3880:15	facts 3681:3	feasibility 3951:10
exist 3734:7 3738:22 3785:5 3862:10 3930:15	expire 3880:25	faculty 3807:18 3808:9	feature 3849:24 3882:15 3884:19
	Expires 3965:15	fail 3801:19 3877:23	features 3759:22 3762:10,17 3842:21 3843:18 3844:11 3849:24 3855:15 3869:19 3876:14 3882:10
existed 3733:21 3734:21	explain 3725:8	failed 3800:14,21 3801:10	
		failure 3803:18	

3883:9,11,13
3884:16,21
3885:14,16,19
3888:6,8,14
3889:1 3890:21

February 3832:16

Feder 3668:23
3773:16,18
3806:11
3815:5,8,22
3816:10 3819:25
3853:9,14
3854:22 3855:2
3870:19 3872:3
3888:22

fee 3735:10 3738:5
3770:22 3771:6
3773:1 3793:6
3794:2,7,13
3797:17 3878:4
3883:22 3886:9
3944:17
3945:12,17,20
3946:5,7
3949:18 3951:3

feedback 3797:19

feel 3821:8

fees 3892:8

FELD 3669:9

felt 3822:2 3851:3

fewer
3758:15,18,20

field 3720:17
3723:21 3745:25
3797:5 3808:25
3874:4

fifth 3669:7
3735:8 3940:18
3941:4,7

FIGEL 3669:18

fight 3956:24
3958:2

fights 3931:14

figure 3675:17,20
3724:9,10

3727:6
3728:5,7,22
3729:17 3730:5
3732:11,24
3733:5,14
3734:11,13,14
3735:19 3737:6
3739:5
3741:1,3,8,9,11
3742:18,20
3743:12
3757:4,8,18
3758:24 3759:7
3789:9 3790:7
3792:24
3878:11,13,14,2
1 3883:4
3884:24
3898:13,22,25
3937:12 3945:9

figured 3957:16

figures 3722:13
3724:7 3732:4
3745:24 3774:17
3798:25 3897:20

filed 3678:15
3874:12,20

files 3750:16

filibustering
3960:15

filings 3675:3

fill 3869:25

fills 3825:23

filters 3818:19

final 3785:16
3788:17 3819:22
3918:25

finally 3813:22
3814:22,24
3819:21 3824:21
3835:1,16
3866:18

finance
3674:4,6,8,12
3684:4

financial 3675:4
3677:6,18,22
3920:7,9 3921:6
3939:23
3940:1,4,15,22
3941:1,16

financially 3965:9

finding 3923:13
3924:25 3925:1

findings 3675:6
3740:6 3769:19
3805:21 3923:12
3934:17

fine 3746:10
3769:7 3822:4
3833:11 3841:1
3854:11,25
3866:7

finish 3801:9
3802:3 3964:3

finished 3889:12

firm 3719:6
3813:18 3817:6
3926:3,6

firms 3817:8

first 3673:9
3683:11,12
3717:3 3723:8
3735:7 3744:15
3745:8 3755:14
3762:20 3773:23
3784:1 3793:5
3806:19
3807:10,12
3810:13
3813:11,14
3814:4 3816:4
3817:22 3818:22
3820:5 3822:10
3823:14 3828:24
3829:13,19,23,2
5 3830:3 3831:8
3832:5 3835:7
3841:11 3846:1
3851:7
3854:4,12,13
3855:17,25

3856:7
3858:13,20
3863:12
3869:5,10,13
3872:20 3873:4
3876:20,25
3878:8 3883:19
3884:1 3887:11
3888:11 3892:24
3917:7,24
3919:22
3929:7,23
3930:3 3934:25
3946:17 3958:25
3959:6

Fischel 3963:17,18

fit 3839:17

fits 3746:20

five 3681:22
3738:14 3739:1
3787:11 3808:12
3824:16 3828:4
3830:19
3861:15,20
3863:12,20
3865:7 3919:17

five-year 3677:12

fixed 3832:8

flip 3754:21
3758:24 3759:7
3777:23 3778:8

flips 3683:22

Floor 3669:3

flows 3882:4

FM 3734:24,25
3735:11
3736:12,14
3737:21
3739:14,23
3786:19,22
3790:15 3812:4
3853:11 3854:7
3855:1

focus 3759:17
3790:6 3808:1,3
3834:5 3847:18

3856:2 3869:15 3870:2 3887:2

focused 3839:22

focuses 3809:8 3837:6 3843:7

folks 3675:15 3957:16

followup 3752:14

follow-up 3729:15 3795:5 3859:22

footnote 3947:23

footnotes 3817:3

force 3824:24 3828:7

forced 3815:18

forecasting 3675:5

foregoing 3965:4

forerunners 3768:16

forest 3717:14

forests 3717:11

forget 3766:17

forgot 3827:10 3867:2

form 3742:10 3811:24 3950:7

formal 3918:10

format 3683:22 3749:19 3853:16

formatted 3853:12 3865:21,24

formula 3956:11,15

formulated 3832:7

forth 3724:4 3813:7 3824:1 3855:24 3856:16 3869:17 3877:1 3894:19

fortunate 3808:8

forward 3717:9 3864:5 3894:15

foundation 3670:7 3676:7 3709:24 3748:21 3781:4 3802:14 3804:24

founding 3719:2

four-stage 3683:10

fourth 3684:11 3743:21 3744:13 3745:4 3755:11 3858:14

FOX 3669:23

framework 3821:1

frankly 3822:22

freaking 3742:5

free 3731:22 3733:13,20 3734:1,4,6,9,20, 22,23 3735:3,11 3737:21 3738:7,11 3742:6,8,10 3762:11 3763:10 3785:4,7 3786:19,22 3787:7,23 3788:8,9,12,23 3789:11 3790:12,19 3803:13 3848:4 3859:19 3883:11,21 3886:1

freely 3856:2

Freemium 3788:23 3789:6

frequently 3753:21 3755:16 3900:17

friend 3771:12

front 3723:3 3790:8

3808:7,11 3810:14 3829:13 3869:3 3873:8

frustrated 3825:19

fulfill 3820:17

full 3718:4 3728:9,12 3734:16,19 3755:14 3843:14 3883:14

functions 3675:7

fundamentally 3865:3

funds 3920:18,19,24

funny 3932:3

Furthermore 3845:3

future 3776:8,12

G

GAAP 3940:8 3958:21,22,23 3959:2,24 3960:1,3

gain 3849:16

game 3844:4 3933:8 3937:7

games 3933:4

Garrett 3926:3 3934:23

gather 3937:10

geared 3725:12

gender 3724:1

general 3708:10 3719:3 3723:15 3740:9 3802:19 3805:8 3816:23 3838:11 3890:20 3934:3 3935:5 3954:22

generalities

3684:24

generally 3685:8 3745:5,24 3758:5 3801:17 3837:15 3870:20 3924:22 3930:14 3940:3 3956:16 3959:16,22 3960:4

generate 3880:18

generated 3681:24,25 3932:8

genres 3760:7 3870:16

gentlemen 3962:23

Georgetown 3919:1

get-go 3801:14

gets 3682:2 3789:12 3929:10,11,12,1 4

getting 3677:17 3780:19 3790:24 3791:20,22 3822:13 3849:17 3917:2 3923:11

given 3778:2 3784:6 3787:12 3792:25 3816:7 3821:4 3826:12,16 3849:14 3858:14 3870:3,6

gives 3830:19 3852:10,13

giving 3867:3

glad 3935:18

glean 3891:10

GLENN 3669:3

glitch 3678:24

Global 3720:3

goal 3723:12
3751:23 3942:23

goals 3723:7

Goldman 3677:10

gone 3795:13

Google 3720:13
3900:4

GOTSHAL
3669:6

governing
3680:19 3874:22

graduate
3718:8,17
3931:20,23
3947:6

graduated 3918:3

Grand 3669:3

granddaughter
3928:4

grant 3940:5

graph 3724:15
3728:22 3735:19
3740:2

gray 3681:4

great 3813:20

greater 3825:8

green 3737:23

Greer 3670:19

grew 3676:4

gross 3928:14

group 3674:20
3675:8 3677:9
3682:17
3720:3,4
3732:18,19
3733:25 3734:1
3737:20,22
3738:9,23
3774:18,22
3775:20,21
3776:6,7,15

3777:10
3778:4,11
3780:5 3784:4,6
3799:2 3813:19
3815:24 3816:17
3884:17,19
3892:3 3929:24

grouping 3727:13
3740:4

groups 3674:7
3675:5 3726:17
3756:22 3774:24
3775:6,10
3777:20 3781:20
3782:8 3920:8

growing 3675:11
3676:21 3791:19

growth 3791:15
3792:10 3876:22
3878:3,24
3879:2

guess 3742:13
3743:23 3765:12

guidance
3958:5,23

guide 3855:25

GUMP 3669:9

guy 3931:24
3932:2 3935:21

guys 3959:1

gym 3794:2

H
Habit 3791:9

habits 3725:4
3726:1,6 3727:3
3788:5

habituated
3790:24 3791:22

half 3861:18
3932:12

hallway 3747:11

hand 3822:3
3871:9 3917:5

3948:5

handbook
3919:19
3940:12,14,20

handed 3796:1
3878:9 3882:21
3921:12

handle 3937:6

handled 3675:3

handout 3842:24

HANSEN 3669:17

Hanssens 3671:10
3672:15,16
3806:18
3807:1,11
3810:4,6,10
3811:18 3817:20
3820:13 3831:1
3836:12,22,24
3837:5 3842:8
3855:4 3869:1
3872:7

H-A-N-S-S-E-N-S
3807:12

happen 3680:20
3850:18 3925:9
3957:12

happens 3685:2
3863:6 3884:15

happenstance
3887:25
3889:8,15

happily 3737:15

happy 3782:11
3833:5,17
3834:18

hard 3680:19
3762:19 3821:13
3863:10 3865:15
3866:11 3867:10

Harvard 3873:19
3918:22

Hauser 3669:9
3881:25

haven't
3708:16,20,21
3742:3 3762:15
3896:15 3942:10
3946:4,7
3958:18

having 3802:15
3857:5 3896:7
3923:14

head 3738:24
3744:10,20
3766:16 3798:20
3800:16 3867:8

headline 3734:14
3812:14

hear 3728:11
3867:9 3917:14
3927:25

heard 3753:21
3755:16 3794:20
3853:15 3896:15
3920:16,17
3921:2 3931:12
3937:17,19

hearing 3668:17
3685:13 3744:9
3794:19 3902:22
3933:20

hears 3835:19

heavily 3778:10
3871:1

heights 3885:3

He'll 3963:1

help 3675:20
3818:10 3832:6

helped 3823:17
3824:1

helpful 3838:13
3948:2

helping 3817:2

helps 3850:24

hereby 3965:3

Here's 3863:6

hereto 3965:9

he's 3710:5
3748:16
3781:5,10
3802:18
3805:2,3,8
3935:2,23,25

hesitated 3945:8

hesitation 3831:15

Hi 3939:11,16

hierarchical-
based 3882:2

high 3684:7
3720:18 3817:9
3833:8 3834:11
3844:23 3846:6
3868:2 3884:12
3918:3

higher 3732:15
3764:6 3775:5
3832:5 3868:5
3877:22,23
3879:2 3891:17
3899:22

highest 3681:19
3777:11 3778:3
3799:5,7,17
3860:21
3861:8,18

hip 3935:21,22
3936:3,6

histogram
3887:19 3890:25

histograms 3883:8

hit 3684:20
3749:23

hits 3681:15

hold 3875:4

home 3764:12
3801:25 3855:23
3933:8

honest 3680:25

Honestly 3777:18

Honor 3673:12
3675:22 3676:1
3677:20,24
3678:3,21
3683:1 3709:23
3710:1,22
3717:6 3721:20
3722:19
3746:10,14
3747:6 3748:15
3750:1,20,23
3751:14
3768:23,24
3769:9 3770:17
3771:10 3772:10
3773:17 3776:22
3778:18,19
3779:6,7,11
3780:16,17
3781:18,19
3782:8,12
3786:5 3792:6
3795:6,23
3797:22,24
3802:13 3804:21
3805:16
3806:7,23
3811:9 3844:1
3852:23 3872:5
3875:22 3892:22
3894:25 3896:25
3902:20 3917:3
3921:8 3922:6,8
3931:10 3938:17
3949:1,9,13,20
3951:24 3952:3
3960:15

Honors 3679:4
3682:20 3710:15
3748:1 3810:3
3811:7 3836:14
3872:10 3874:24
3875:20 3934:7
3948:20

horizon 3881:1,11

hot 3921:2

hour 3681:21,22
3769:8 3823:1

3846:24,25
3847:12 3849:13
3866:5

hours 3681:12
3789:25
3832:2,3
3855:24

hovers 3835:12

Howard 3947:3

Howdy 3917:13

How's 3917:16

HUBER 3669:17

huge 3732:18

hugely 3861:14

human 3814:21
3856:17

hundred 3749:3,4
3820:3 3821:5
3826:1 3845:2
3847:21
3850:2,4,16
3851:8,19
3852:14
3857:11,13,14
3864:12 3869:24
3932:18

hundreds 3931:11
3954:10

hung 3801:8

hurdle 3823:1

hypothetical
3734:20 3757:14
3759:4,10,18
3762:24 3763:19
3764:10 3788:2
3789:10 3794:13
3804:12,18
3821:5 3857:16

hypotheticals
3804:22

_____
        I
_____

I'd 3682:20 3736:6
3921:5 3932:20

3960:12

identical
3837:13,16

identification
3680:1 3722:4

identified 3838:7
3839:17 3886:5

identify 3718:7,16
3838:23
3839:3,5
3948:12

iHeart 3679:5
3680:1 3682:21
3709:11 3720:2
3741:5
3838:14,20
3844:3 3942:20

iheartmedia
3672:5,11
3673:15,22
3679:9 3682:24
3709:5

iHeartMedia
3669:17
3674:16,18
3708:17

iHeartRadio
3674:8,13
3682:11
3838:9,18
3899:23

iHearts 3775:19

iHeart's 3708:11

II 3963:11

III 3963:11

I'll 3749:9,22
3757:5 3758:18
3762:4 3768:14
3790:18 3812:19
3813:9 3841:5
3864:20 3897:3
3924:13,15
3960:23

illustrates 3882:16

I'm 3673:24

3676:7 3679:2
3680:10 3681:4
3710:14 3718:10
3725:10 3728:9
3735:1 3743:1
3746:6,15
3753:24 3755:25
3756:4 3760:15
3765:10,14
3766:5 3780:20
3782:17 3786:10
3788:25 3792:16
3793:17
3794:1,21
3800:17 3801:5
3802:3,19
3805:5
3807:13,15
3809:13 3812:8
3815:16 3820:3
3828:8 3829:25
3833:5,17
3834:18 3836:25
3837:15 3839:19
3840:21
3841:1,19
3842:23
3843:11,13,14
3847:7
3848:7,18
3851:1,12,15
3859:23 3860:6
3861:20 3862:4
3864:9,11
3866:21 3870:9
3873:24 3879:19
3889:11 3892:20
3893:22 3902:14
3917:23 3926:2
3927:9 3928:7
3931:21 3933:20
3934:7,8
3935:18 3937:15
3938:24
3940:10,16
3941:5,10,23
3945:24 3948:1
3950:13
3953:9,10
3955:13

3964:4,5

imaginable
3801:24

imagine 3802:1
3857:17

Imeem 3676:18

immediately
3863:21

impact 3732:22

impeachment
3769:1,6,17

implement
3811:21

implementation
3832:14

implementing
3813:12

implicit 3848:13
3926:16

implied
3794:16,24

importance
3775:14

important
3724:12,14,18,2
0
3725:12,19,20,2
3 3751:19
3775:21,22
3776:1 3824:5
3827:7 3828:7
3830:3 3831:16
3834:5,22
3841:3
3842:12,14
3848:12 3852:8
3858:20 3861:5
3883:19 3884:8
3930:18 3935:10
3936:8

importantly
3824:21 3828:19

impossible
3681:23 3923:17

3928:1,3 3929:1

impractical
3681:8

impression 3830:2

improve 3685:3
3831:25

improved 3832:12
3888:14,16,18

Inasmuch 3765:7

Inc 3669:5,17

incentive 3820:1,7

incentives 3815:15
3816:7

incidentally
3812:19 3850:8
3853:1

include 3674:9
3730:1 3737:11
3757:23 3786:22
3801:4 3808:22
3813:5 3823:13
3870:4 3927:3,4
3954:9 3956:1,2

included 3677:13
3730:20 3731:4
3760:8 3784:17
3801:11 3842:25
3853:17 3869:6
3884:21,22
3888:8,18
3926:25

includes 3894:24

including 3719:23
3720:1 3730:12
3731:11 3756:10
3808:9 3893:13
3895:5 3918:2

incomplete
3804:22

inconsistent
3952:22

incorrect 3796:23

increase 3784:5

3945:24,25

increased 3744:13
3789:21 3945:22

increasing 3804:7

incredibly 3749:3

indeed 3826:8

indefinite 3793:10

independent
3682:18
3817:6,14,17

independently
3817:7 3831:12

independents
3684:19

indicate 3831:14

indicates 3887:17

indications
3765:24

individual
3728:16
3760:12,16
3826:13 3834:12
3857:9 3861:17
3902:6,8,12

individuals
3735:25 3736:20
3743:4 3818:1
3825:4 3857:10
3886:25 3891:16
3892:3

individual's
3957:6

industrial 3918:9
3919:9

industries 3895:23
3896:1,10,11,24
3955:1

industry 3674:19
3679:18 3681:6
3788:5 3790:11
3897:10
3923:6,7,8,9
3925:3,4,6,12,15
,20 3926:1,13

3934:19,21,22,2
3,25 3935:7
3937:12 3938:5
3952:25
3953:3,24
3954:4
3957:4,24

inference 3833:19
3871:11

infinite 3672:8
3720:14,15
3721:3 3766:14
3768:17 3775:10
3776:13 3777:16
3778:13 3779:1
3780:12
3781:6,10,22
3782:22 3791:12

influence 3753:7

inform 3795:21
3925:14

information
3732:6 3736:23
3737:9,16
3783:6,7
3796:23 3839:7
3846:5 3849:6
3876:15
3882:4,6 3884:9
3900:21 3918:17

informative
3726:6
3877:2,10
3951:23

informing
3793:15

infrastructure
3674:5 3676:22
3685:4

ingest 3676:22

initial 3673:19
3917:23

initially 3678:14
3818:17 3819:4

initiative

3721:1,12

in-person 3830:23
3870:22

input 3817:13
3892:17

insights 3896:2

Insofar 3925:18

instance 3681:9
3721:8 3725:16
3741:5 3794:24
3855:14

instead 3721:4
3735:5 3787:14
3826:21 3944:17

Institute 3809:6

instruct 3825:25

instruction
3743:10 3828:15

instrument
3749:12,13
3756:4,5,7,11,15
3759:16 3773:15
3786:7 3831:18

Insurance
3920:19

integral 3809:12
3859:10

intend 3844:6

intending
3769:15,19

intensity 3737:7

intensive 3685:7
3870:11

intent 3752:2

intention 3797:5

interact 3789:15

interaction 3963:2

interactions
3675:9 3676:13

interactive
3789:16 3926:25
3927:4,15

3951:18 3963:7

interactivity
3876:16
3887:8,12,16
3888:9,20
3889:4,17
3892:19 3900:24

interest 3726:2
3732:15 3733:1
3856:14 3919:15

interested 3726:1
3731:19 3737:17
3833:15 3965:10

interesting 3853:3
3858:17 3863:7
3900:22

interestingly
3868:16

interface 3871:22

internal 3937:20

International
3920:11

Internet 3682:9
3720:9
3721:9,15
3728:21 3731:1
3734:21
3735:3,10,21
3736:1,7,21
3737:19
3738:11,21
3739:24
3768:7,15
3772:16 3790:12
3791:8
3813:23,24
3814:1 3827:10
3828:16 3837:14
3838:5 3842:22
3843:20 3846:23
3853:13,14
3854:8 3867:5
3869:16
3871:13,20
3933:4

Internet-based

3870:20

interpret 3752:6,9

interpretation
3680:17 3681:4
3682:6 3954:8

interrupt 3720:8

interspersed
3934:4

interval 3783:23
3812:24 3834:16
3835:13

intervals 3783:18

intervening
3918:21

intervention
3814:21

interview 3815:16
3830:18,23

interviewer
3738:25
3814:11,13

interviews
3830:23

introduce 3769:15
3873:2 3917:21

introduced 3926:3

introduction
3676:6

invested
3879:7,14,16,17,
20

investing 3900:1,7

investment
3879:4,14
3880:10 3881:2
3899:17,20

investments
3880:5,17,18
3881:4 3899:4
3900:10

investor 3880:24

investors 3881:11

invited 3814:15
3816:6

involve 3822:12
3940:1

involved 3676:16
3677:10,11
3683:23 3710:6
3813:14 3814:11
3874:18 3965:6

involvement
3677:8 3819:19

involves 3891:20

involving 3874:15

isn't 3822:17
3889:9 3936:3

issue 3931:4

issues 3874:15
3876:24 3882:18
3902:16
3925:15,19
3944:25 3945:2
3951:13

item 3786:18

items 3720:20
3741:11 3743:4
3753:21,24
3754:1 3755:16
3789:9

it's 3678:1
3679:21 3680:7
3683:13,23
3685:8 3708:14
3709:14 3718:12
3721:11 3725:5
3729:1
3732:5,6,13
3736:25
3743:20,22,23
3744:20
3748:15,17
3754:20
3756:1,2
3757:21 3758:18
3760:13 3768:6
3769:7,12
3770:15 3772:4

3775:17,20,23
3777:15 3779:11
3780:19 3781:11
3782:5,6,15
3786:6 3789:2
3790:25
3792:18,24
3793:2,17
3794:8 3796:2
3801:21 3802:25
3803:5,21
3810:14
3814:6,7
3815:10 3816:5
3818:22 3824:24
3827:6,7
3829:23
3830:1,3,10
3831:16 3832:10
3842:14 3848:12
3851:16
3852:4,8,24
3854:24 3858:17
3863:18 3865:24
3869:23
3883:4,19
3884:8 3886:19
3887:13 3890:9
3891:19 3892:2
3897:6
3898:3,18,19
3901:1
3923:17,22
3927:21
3930:2,23
3931:4 3932:18
3934:1 3936:14
3947:25 3949:12
3953:13 3957:3
3960:3

iTunes 3741:6
3900:8

IV 3668:9

I've 3749:22
3807:18 3808:7
3809:2,15,25
3813:15,19
3817:11 3823:20
3828:16

3834:7,9 3835:7
3841:13 3883:20
3892:23
3918:14,21,24
3919:8,25
3920:2,7
3922:22 3923:9
3927:2
3933:2,12
3938:22 3942:4
3947:5 3953:3

J

JACKSON
3669:23

JACOB 3669:9

January 3720:17
3723:21,22
3832:16

jargon 3940:9
3953:19

jarring 3725:1

Jays 3933:8

Jennifer 3670:4
3796:3

Jeopardy 3805:14

Jersey 3718:23

JESSE 3668:23

job 3851:17
3938:11

jockey 3829:9
3845:7

jockeys 3813:6
3824:5 3865:2

JOHN 3669:18

joined 3674:20

joining 3794:2

joint 3935:22

Jon 3671:2
3673:8,19

J-O-N 3673:19

Joseph 3669:13
3671:14

3872:10,24
3874:24
3875:6,20
3876:2 3881:17
3883:16 3885:4
3892:14,21
3899:3 3902:15
3917:2

journal 3919:5

journals 3808:23

Judge
3668:21,22,23
3673:4,6,14
3676:10 3677:25
3679:3,8
3682:23 3685:12
3709:1
3710:3,10,19,23
3717:10,20
3718:2,9,14
3721:21 3722:20
3724:22,25
3725:24
3726:5,11,20,24
3727:1
3731:2,7,15,19,2
4 3735:22,25
3736:3,16,19,24
3737:5,10
3742:11,17,23
3743:3,7,17,23
3744:17,25
3745:3,14,22
3746:4,6,12,15
3747:3
3748:6,22
3750:21,24
3751:2,9
3752:9,23
3756:12
3766:22,24
3767:6,13,16,19,
24 3768:3
3769:14,21,24
3770:15
3771:15,18,22
3772:2,7,9,11
3773:16,18
3776:25 3778:20

3779:13
3780:22,25
3781:13,24
3782:3,9,15,18
3783:15
3784:1,8,12,16,2
2,25 3786:4,9,12
3792:7,18,22
3793:5 3794:1,6
3795:3,7,24
3797:14,25
3798:15
3799:8,15,21
3800:23
3801:3,12
3802:22 3803:25
3805:10,17
3806:9,11,16,22
3807:4 3810:6
3811:10
3815:5,8,22
3816:10,11,14
3817:14,18
3819:25 3822:7
3823:8
3825:3,14,23
3826:3 3827:1
3828:24 3829:16
3830:4,13,24
3836:16 3843:21
3845:10 3846:17
3850:13
3851:6,22
3852:2,19
3853:9,14
3854:22 3855:2
3858:9
3859:1,4,12,22
3867:14,19
3868:7,10,18,23
3870:19
3872:3,6,9,12,17
3875:2,4,23
3879:16,23
3880:8,17,23
3881:9,16
3883:1,6
3884:24 3888:22
3889:11,14
3890:22

3891:4,18
3892:13 3893:1
3894:18,23
3898:10,14
3899:3 3902:21
3917:4 3921:9
3922:9 3923:21
3924:15 3934:10
3935:16 3938:21
3939:1,4,6
3947:11
3948:6,12,24
3949:3,7,10,23
3952:5
3955:9,14
3956:21,25
3957:9,18,22
3958:3,7,11
3960:10,18
3961:8,13,16
3962:11,14,17,1
9,23
3963:5,12,15,18,
25 3964:4

judges 3668:20
3718:7,16
3719:4 3734:12
3747:14 3931:10
3942:18 3943:9
3944:4 3945:17

July 3677:5

jump 3880:8

K

Kaplan 3926:4

KARYN 3669:14
3670:4

KELLOGG
3669:17

Kelly 3670:17
3747:12

key 3680:8
3820:19 3823:11
3826:9 3834:8
3838:22,23
3842:18 3845:14
3867:17 3869:12

3883:17

kid 3928:6

Kids 3801:25

kinds 3681:10
3720:22 3721:8
3812:10 3834:23
3836:3 3846:15
3926:7 3953:3

Klaus 3670:17
3671:8 3721:20
3722:19
3746:4,5,7,10,13
,14
3747:5,6,8,12
3748:1,7,20,23
3749:25
3750:2,12,23
3751:5,6,14,17
3752:13,15,24
3756:6,13
3762:6,8
3766:23
3768:4,22
3769:9,18,23,25
3770:1,17,19
3771:10,17,21,2
4 3772:6,8,13
3773:17,19,20
3776:22 3777:3
3778:17,23
3779:5,10,15,16
3780:15
3781:2,18
3782:2,5,11,17,1
9,20 3785:1
3786:5,11,13,14
3792:5
3795:5,8,22,25
3797:21 3798:3
3800:2 3802:13
3803:11 3804:21
3805:3,15
3806:7

Klaus's 3802:5

KNAUER 3670:8

knew 3833:6
3836:18 3840:5

3947:7

knowledge 3788:4
3790:10 3810:23
3875:13 3957:4

known 3719:10
3745:12 3767:20
3933:12 3947:5

Kuruvilla 3670:18
3939:12

L

LA 3681:17

label 3719:22

labeled 3709:14
3875:10

labels 3675:13
3682:19

label's 3676:15

labor 3685:7

lack 3676:6
3889:25

Lacks 3802:13

landlines 3723:24

language 3828:10
3956:5

lapse 3832:7

large 3732:13
3766:20 3815:19
3848:18 3871:11

largely 3870:24

larger 3728:2
3738:15 3749:13
3786:8 3818:18

largest 3720:3,4
3724:19 3799:2

**Larraondo-
Klipper**
3670:17

Larson 3670:21
3746:23 3747:4
3796:2

last 3673:19

3678:10 3718:10 3721:2 3722:9 3738:3 3744:15 3755:22 3769:2 3772:3 3779:20,25 3782:22 3785:3,22 3792:8,12 3801:10 3807:5,9,11 3829:13,19 3830:5,6,8,10 3859:25 3866:8 3869:3 3873:3,6 3879:23 3892:15,25 3918:17 3934:8 3939:14 3942:22 3951:25

late 3708:17 3709:18,20 3710:13,16 3918:4

later 3753:21 3754:1 3755:16 3772:14 3808:13 3844:16 3924:13

law 3935:13

Lawrence 3671:6 3717:2 3718:6

lawyer 3836:25 3935:14 3938:22

lawyers 3935:10 3939:2

lay 3748:20 3919:4 3956:5

layer 3878:25

laying 3676:7

layman 3961:12

laymen 3935:12 3954:5

lead 3680:23 3810:2

leadership 3677:6

leading 3813:24

leads 3680:13

leaking 3885:22

learn 3918:12 3925:21 3932:25 3935:13

learned 3947:8

least 3818:2,4 3823:1 3858:6 3863:8 3865:15 3867:11 3868:13,14 3871:7 3882:18 3884:17 3926:4 3931:2

leave 3677:2 3781:15 3876:18 3934:11 3957:17

ledger 3885:22

legitimate 3956:8

LeMoine 3670:17 3671:11 3811:9 3836:14,17,18,21,25 3843:22 3844:5,7 3846:18 3852:22 3853:7 3855:3 3859:24 3867:12 3872:4

length 3801:21

less 3735:16 3738:4 3785:7 3830:14 3850:15 3851:8 3857:14 3861:19 3879:2 3885:7 3886:22 3892:2 3940:7

let's 3807:4 3813:8 3821:14 3823:10 3827:12 3828:3 3829:10 3845:6 3849:12,13 3854:12,17 3857:11 3871:2 3872:14 3876:20 3881:18 3887:2

3888:12 3893:23 3894:1 3897:9 3900:14 3934:10 3937:1,3,9,10,11 3938:21 3939:17 3944:2 3961:5

letter 3796:1

letting 3964:2

level 3684:6,7 3708:10 3719:3 3759:5 3795:16 3797:16 3799:22,25 3835:8 3878:16 3892:10 3898:5

levels 3728:4 3877:7,8 3878:17

Lexecon 3873:21,23

library 3668:3 3728:14 3759:23 3760:1,3,5,8

license 3670:3 3674:10 3874:17 3892:8 3938:10

licensed 3676:13 3878:4 3936:1

licenses 3674:11 3891:25 3898:4

licensing 3676:16 3677:16 3874:15,19

Lichtman 3962:21 3963:19

life 3725:21,23 3920:18

lifetime 3808:14 3896:7

light 3728:4

likelihood 3789:5

likely 3728:19 3729:8,9,10,11 3730:8,10,11,12,

13,15,16,20,21,22,25 3731:21 3732:17,20 3733:2,4,7,9,21 3734:3,5,6,7 3735:4 3738:9 3741:18 3742:9 3757:13 3759:3,9 3776:12 3836:10

likewise 3828:7 3830:9

limit 3894:1

limitations 3738:18 3765:22

limited 3739:1 3741:16 3828:17 3864:7 3881:4 3940:23

limits 3836:8

line 3678:16,22 3745:4 3761:14 3786:1 3787:3 3790:6 3794:17 3801:25 3860:1 3944:24 3953:21 3954:10 3960:13

lines 3821:22 3822:5 3859:15 3878:17 3884:13 3885:2 3955:9

list 3719:18 3742:24 3753:21,24 3754:16 3755:17 3769:2,3,10 3813:4 3823:21 3824:7 3825:2 3948:16 3952:14

list-based 3745:13

listed 3762:10,18 3786:18 3787:17 3793:6 3799:8,12 3861:22

listen

3735:11,12,15
3737:23,24
3738:2,4
3745:19 3757:19
3759:1 3762:24
3763:14
3770:22,24
3773:2 3779:19
3785:7 3786:19
3787:25 3795:18
3819:9 3827:10
3832:2,4 3838:3
3842:22 3843:19
3845:15,21
3846:7,10
3854:9 3855:16
3856:15,22
3857:7,13
3932:17
3933:3,5

listened 3732:19
3733:16 3735:21
3736:1,7,11,13,2
1 3737:19,21
3739:6,9 3741:4
3757:11 3773:3
3779:24
3790:1,13
3826:7 3837:13
3839:1
3845:16,17
3932:5

listener 3822:25
3823:22
3835:19,24
3840:19 3841:8
3843:7 3860:11

listeners 3732:2
3757:23 3792:21
3811:23 3836:1
3838:9,18,20

listening
3735:3,14
3737:7
3739:3,10,11,12,
16,17
3740:5,6,18
3741:10 3742:20

3743:13,15
3745:16 3762:2
3763:4,6,7,8
3776:4 3778:3,9
3788:5 3790:14
3791:16 3804:19
3805:23,25
3806:6 3818:4
3837:6 3842:4
3855:8,16,21
3860:4 3883:14
3932:1,16

listens 3822:25
3854:17

lists 3749:14
3754:1

listserv 3746:18

literally 3776:8
3820:5 3852:6

literature 3680:20
3766:6 3853:1

litigation 3816:22
3874:1,8,17
3925:8,9
3931:14 3937:5
3940:12,20
3955:12,17,21

little 3729:1,2
3732:12,15
3733:1 3734:17
3757:8 3812:13
3813:8 3830:16
3832:7 3834:1
3837:25 3853:19
3861:19 3863:24
3866:13 3872:13
3917:15 3925:21

live 3957:5

lives 3790:25
3791:24 3933:5

LLP
3669:2,6,9,13,23
3670:3,8

load 3789:20
3804:7

local 3717:11

3813:6 3861:1

logic 3924:4

logical
3923:17,23,25
3924:20 3929:2
3930:16

logically 3824:12
3929:2

logs 3683:14

London 3920:11

long 3674:16
3684:17 3719:1
3728:17 3760:20
3772:2 3788:15
3794:18,25
3807:17 3812:20
3820:8 3830:21
3840:25 3854:25
3946:3

longer 3733:13,20
3734:7,21
3880:19

loop 3859:25

Los 3669:4

lose 3938:10,13
3939:7

lost 3819:9 3833:9
3927:2

lot 3681:20 3745:1
3753:23 3765:20
3766:17 3809:14
3819:9 3833:9
3834:12 3836:1
3850:21 3931:21
3935:11 3936:19

lots 3681:4
3683:19 3725:11
3749:4

loud 3710:14
3953:9,14
3960:24,25

low 3819:18
3845:22 3868:2
3885:18,23

3925:8

lower 3730:4,17
3826:18 3836:10
3868:6 3877:23
3881:6 3884:4
3946:3,18

lowering 3732:22

lowest 3858:6

lump 3865:3

lunch 3837:2

Lys 3933:11
3947:1,5
3949:16 3950:17
3951:7 3952:4

Lys's 3947:9,15

M

M.B.A 3718:19

magnitude
3835:12

main 3808:3
3839:21
3843:4,12
3875:16 3876:23

mainly 3808:22

MainStay 3920:19

major
3719:19,21,25
3824:8

majority 3729:8
3730:14,24
3733:4 3734:2
3741:17,22
3742:5

majors 3719:23

makers 3761:7

Malone 3746:17

mama-papa
3942:20

manage 3674:4

management
3807:16,25

3919:19 3937:18

managerial 3921:7

MANGES 3669:6

manual 3827:25

March 3674:17
3791:8 3796:2

margin 3677:14
3783:18,22
3784:4,19
3798:16,20,24
3799:3,6,17
3861:9

marked 3679:25
3722:4 3750:14
3768:5 3770:8
3778:25 3810:17
3843:23 3921:13

marker 3886:5

market 3719:5
3721:19 3728:3
3741:15,16
3761:18 3803:3
3804:9 3817:6,8
3819:11 3821:2
3833:11 3848:4
3874:18,19
3884:10 3886:6
3887:22
3891:1,8,9
3893:25
3894:12,13
3895:6,8,12,19
3942:2

marketing 3762:3
3763:24
3764:6,15
3808:4,12,15,16,
22
3809:1,3,6,9,20
3810:4,5

marketplace
3803:21 3806:5
3886:13
3941:21,24
3942:7,12

3943:1 3952:18

markets 3673:24
3674:5

Marks 3670:21
3671:7
3717:6,17,21,24
3718:1,3,15
3721:17,23
3722:17,23
3726:25 3731:25
3738:13 3745:23
3746:3 3748:15
3750:4,12
3756:3,9
3768:24 3770:16
3771:12 3772:10
3776:24 3778:19
3779:7
3780:17,24
3785:4 3797:24
3798:2 3800:1
3801:16
3802:17,23
3804:5
3805:1,19
3806:10

Martha 3670:17

mass 3751:12

Massachusetts
3809:7

master's 3807:24
3918:8

match 3848:5

materiality
3936:16 3937:4

materials 3722:14
3754:8 3761:18
3762:3 3763:24
3764:7,15
3796:6,16,25

math 3800:18

mathematical
3918:16

mathematics
3918:5

matter 3668:17
3752:25 3769:16
3820:18 3866:6
3876:4 3878:23
3897:24,25
3898:23
3919:15,16
3922:14 3927:8
3930:3
3946:12,14
3962:6

matters 3776:15
3874:13,15

maximize 3848:9
3856:18 3892:3

may 3668:15
3681:20 3735:22
3795:5,22,24
3806:12 3826:13
3829:25 3830:1
3833:10 3836:4
3845:16 3857:15
3858:19 3863:9
3872:9 3931:12
3934:11 3935:9
3946:2 3954:19
3958:14,22
3965:16

maybe 3725:8
3822:16 3829:13
3845:19 3858:5
3859:14,23
3864:4 3867:19
3917:15 3926:5
3931:17 3935:23
3936:2,21,22,24
3937:13 3953:14
3960:18

McFadden
3767:14,17
3876:11
3882:8,18
3884:10 3887:17
3889:20
3900:15,19
3901:15

McFadden's
3881:19,20,21,2

2 3884:16
3886:1
3887:3,5,7,21
3888:3,19
3892:16

MD 3935:20
3936:4

mean 3676:15
3683:12 3720:8
3727:23 3736:18
3752:10 3781:25
3792:14
3794:7,15
3805:15,16
3815:8
3829:19,21
3839:5 3844:10
3849:8 3856:25
3857:1 3858:7
3867:25 3878:22
3886:12 3890:9
3891:24 3893:12
3898:19 3901:18
3902:13 3918:19
3941:23 3947:11
3952:1
3953:2,11,17,18
3954:2,18
3956:11,15,19
3958:8
3961:12,24
3962:5

meaning 3752:2
3831:15 3852:14
3956:5

meaningful
3675:12 3821:18
3833:19 3864:2
3896:2

meanings 3849:9
3956:5

means 3680:21
3734:22 3784:11
3791:21 3803:1
3834:10 3844:25
3845:1 3849:4
3850:4 3918:20
3940:6 3956:15

3961:11,12,19

meant 3736:16
3752:16 3759:25
3851:25 3954:6

measure 3721:5
3723:6 3739:2
3751:20 3888:4

measured 3888:7

measurement-
oriented 3721:4

measures 3888:2

measuring
3721:13 3889:1
3890:4,18,20

meat 3851:9

mechanically
3684:15

mechanism
3820:7 3851:17
3956:12 3957:3

media 3669:5
3670:7 3719:14
3720:12,22
3727:24 3768:7

median 3867:24
3868:10,11,19

medical 3871:3
3935:25 3936:5

medium 3813:23
3815:2 3871:14

meet 3675:15
3684:6 3864:6

meetings 3675:24

meets 3823:1

Melinda 3670:17

Mellon 3918:8

member 3717:13

members 3717:15
3814:6

membership
3814:5
3815:6,9,11

memorize
3830:18,20

memory 3832:7
3851:14 3947:25
3948:1

mentally 3826:19

mentioned
3729:16 3783:19
3797:3 3798:9
3814:17 3816:15
3818:15 3829:24
3833:9 3843:8
3845:9 3856:9
3858:20 3863:9
3866:14 3955:10

mentions 3831:2

mere 3925:6
3934:25

merely 3792:25
3918:20 3923:5

mergers 3874:2

merit 3918:20

met 3747:11
3837:1

method
3680:12,16
3821:25 3822:8
3872:2 3924:21

methodology
3682:7 3723:16
3724:4 3738:19

methods 3813:22
3822:2,4
3870:21 3889:22
3890:20 3898:20

method's 3821:4

MICHAEL
3669:14

Microsoft 3679:2

middle 3673:19
3709:17 3917:23
3922:2

midpoint 3867:23

midterm 3719:13

Miller 3926:4

million
3758:3,12,15,20
3814:6
3815:6,12
3846:4 3879:7
3936:20

Mills 3671:17
3917:11,19
3921:5,11
3922:6,12
3924:18,24
3934:7,13,14
3937:25 3938:15
3948:23 3949:20
3952:3
3962:11,13

mind 3738:17
3744:6 3865:22
3954:12

mindful 3934:7

Mindy 3836:25

minimal 3820:11

minimize 3757:6

minimum 3783:24

minor 3719:25
3832:11

minority 3728:1,2

minus 3852:21

minute 3812:21
3853:23 3855:10
3860:6 3862:4

minutes 3685:14
3850:23 3899:3
3938:18,23
3939:4

mired 3955:12

missed 3684:22
3867:20

missing 3949:4

misspoke 3879:22

mistake 3900:20

mistakenly
3678:17

MIT 3853:3

mix 3840:7,12
3841:2,10
3849:18 3850:10

MLB.com 3933:4

mobile 3761:23,24
3762:2,18
3804:14 3883:15
3897:9

mode 3896:6
3947:25

model 3677:12
3887:11
3890:6,11

modeling
3677:18,22

models 3925:21

modern 3746:19

modified 3874:23

moment 3748:14
3750:25 3759:14
3921:3

money 3675:21
3727:8 3803:15
3929:21 3936:19

monitor 3795:17

monitoring
3798:5

monopoly 3877:7

Montgomery
3918:4

month 3685:2
3727:19 3728:20
3730:7 3731:1
3733:16,22
3735:10 3738:5
3739:6
3779:20,25
3793:6,9,11,21
3883:23,25
3884:12 3891:21

monthly 3684:6
3758:9 3778:2
3791:15,21
3792:10,13,17,2
1 3793:12,13,21
3794:2,7
3797:15,17
3886:9

months 3674:1

more-oriented
3721:13

morning
3673:4,13,14
3681:17
3724:23,24
3746:8
3747:9,10
3756:20 3855:22
3873:4 3931:25
3938:19 3949:6
3962:18,19

mostly 3739:12,22
3740:14 3776:10

mourning 3717:11

move 3679:4
3682:20 3717:9
3748:11,16
3750:19 3768:22
3771:10 3776:22
3778:17 3779:5
3780:15 3900:14
3934:15 3944:2
3951:24

moved 3756:9

moving 3902:19

Mozart
3933:15,16

multi-attribute
3930:1

multiple 3829:4
3863:19 3954:19
3959:3

multiplication
3927:22

multiplied

3928:22 3931:8

multiply 3924:10
3928:3

MUNGER 3669:2

music 3670:3
3674:19,20,22,2
4 3675:16
3677:9 3681:12
3682:2,17
3719:15,23
3721:10 3723:14
3724:13,14,17,2
0
3725:3,7,12,21,2
3 3726:1
3727:3,15,23
3728:13,14,17
3731:10 3734:21
3735:3,10,13,14,
16 3737:24
3738:2,4
3739:14,15,20,2
2,25
3740:12,14,17,2
3 3745:19
3759:23,25
3760:2,5,8,20
3761:7,23
3762:24 3764:11
3785:8
3787:13,15
3788:4 3790:15
3793:7 3803:8
3806:1 3811:23
3812:4,17,23
3824:4,16
3827:2,11
3828:13 3829:9
3835:9,16,22
3836:5 3837:8,9
3839:15
3840:8,23,24
3841:2 3845:23
3846:10
3847:1,11,20
3849:12 3850:6
3853:11,16
3854:14,18,22,2
3 3855:25

3856:15,22,24
3857:1,5,17
3858:4
3860:3,5,7,8,13,
18 3861:5,15
3862:2,3,15,18
3863:1,14,15
3864:7,11
3865:9,18,20,21,
23 3866:4,17,22
3868:7,9,14
3870:3,10,11,16
3874:15,17
3876:14 3885:20
3886:15
3930:21,22,23,2
5 3931:16,19
3932:5,10,14,17,
18,19,21
3933:13
3934:2,3

musical 3874:20

music-formatted
3828:11 3838:4

mutual
3920:18,24

myself 3823:22
3959:14 3960:24
3962:1

N

N.W
3669:15,20,24
3670:5,8

NAB 3672:14
3806:24
3810:3,18,20
3811:7,11
3868:24
3872:10,23
3873:8 3874:24
3875:10,20,25
3893:16 3894:21
3896:13 3917:10
3921:13
3922:7,10

nailing 3765:22

name's 3917:18

narrow 3823:18

nascent 3675:19

nation 3815:13

national 3669:12
3670:2 3674:6
3917:19 3933:9

nationally
3723:18

native 3807:21

nature 3781:9
3793:10 3814:12
3870:24

nearest
3936:22,23

nearly 3861:15

necessarily
3725:25 3793:23
3848:15 3880:24
3889:6 3890:19
3896:6,9

needn't 3934:25

negative 3852:20
3884:18,20
3885:10,13,22

negotiate 3943:7

negotiated 3943:1

negotiations
3710:7

neighborhood
3758:3 3889:24

networks
3719:11,20

newer 3721:1

news 3719:20
3791:8 3813:5
3824:11 3829:9
3844:5 3854:20
3858:2,3
3860:24 3861:18
3862:10 3865:2

newspapers

3719:21

nice 3740:12
3837:4

niche 3845:18

Nichols 3762:6

nickel 3939:3

night 3769:2
3772:4

nine 3864:1,4

nobody 3840:22

nominally
3932:19

Noncommerical
3670:3

nonCPA 3941:18
3942:13

nondisclosure
3685:13 3902:22

none 3879:13

noninteractive
3723:10
3732:2,8,19
3741:2,5,19,23
3742:2
3757:11,19
3759:1,8 3785:5
3803:13 3804:7
3805:24 3879:14
3899:5,17,20
3900:2,5,11

noninteractives
3879:25 3880:11

nonmusic 3834:23
3840:8 3841:3
3931:17,19

non-music
3861:21,22,25
3862:2,3,16
3868:20

nonprofit 3809:7

nonrespondent
3825:21

nonsensical

3819:17

nontalk 3953:12

nonzero 3863:17

North 3720:7

Nos 3751:15

Notary 3965:13

Note 3791:18

nothing 3673:10
3675:24 3677:22
3717:4 3726:8
3727:14 3797:15
3806:20 3817:5
3850:6 3872:21
3917:8 3952:23
3962:13

notice 3742:17

noticed 3746:16
3849:10 3889:15

notified 3963:22

notion 3723:8
3822:13,18
3853:1,2
3923:14

nowadays 3871:19

NPD 3838:15

NPR 3854:18,19

numeral 3963:11

numerical
3749:14

numerically
3887:24

numerous
3675:14 3805:5
3809:15 3813:16
3864:21

nuts 3677:18

_____ O _____

object 3709:23
3768:24 3804:21

objected 3676:5

objection 3676:8

3679:7 3682:22
3710:8 3721:20
3722:19 3751:10
3768:25 3771:12
3772:1,10
3776:24 3778:19
3780:22 3802:13
3805:17 3806:7
3811:9
3875:1,22
3896:25 3921:8
3948:23 3949:20

objections
3772:11 3922:8

objective 3814:16
3822:2 3870:25
3959:7

objectivity 3935:1

obligations
3708:5,13,18

observation
3727:21

obtaining 3886:15

obviously
3725:4,5
3765:10,20,21
3775:24 3784:21
3813:17 3825:7

occasion 3825:14

odd 3725:8,11

oddball 3933:13

offer 3721:17
3722:17 3824:3
3874:25 3875:20
3893:19 3921:5
3922:6 3948:20

offered 3739:13
3753:6 3841:7
3848:6 3888:14

offering
3881:22,24

offers 3811:7

office 3795:15

offline 3762:24

3763:7,8
3804:18 3883:14

oft 3929:9,14

oh 3726:23 3745:6
3746:15
3754:14,23
3772:7 3817:16
3826:8 3827:10
3931:19 3954:1
3961:25

okay 3684:12
3708:16 3709:16
3747:3,21
3748:22
3749:11,24
3750:11 3751:9
3755:2
3758:5,10,14,24
3759:13
3761:16,21,25
3762:5,21
3763:9,13
3764:1,9,18
3766:13,19
3768:14,19
3769:25 3770:13
3771:2,7,17,21
3772:9,18,22
3773:10
3774:16,21
3775:8
3776:6,13
3777:15 3778:16
3782:19 3783:1
3784:25 3785:20
3786:25 3787:18
3788:2 3789:3
3790:3
3792:4,22
3796:11 3797:20
3820:22 3824:24
3826:3 3827:11
3828:13 3829:7
3830:3,6 3831:6
3832:15 3837:11
3838:7,22
3840:15
3841:2,16
3842:23

3843:9,11,13
3844:21 3848:17
3849:11 3850:1
3852:7,12
3853:18 3855:17
3856:1 3857:2
3860:6,16
3862:5,24
3863:5
3864:22,23
3865:23 3866:13
3870:18
3894:4,5
3917:14 3919:14
3920:4,15
3921:5,16,22
3922:6 3923:11
3925:10 3926:19
3927:11,14
3934:13 3938:15
3939:3,25
3941:13,15
3942:6,17
3947:22 3949:7
3954:1
3961:1,15,18

Okey-doke
3934:18

Olasa 3670:18
3671:17 3921:8
3922:8
3939:9,12,15,16
3941:3
3947:13,14
3948:3,8,15,20
3949:1,9,12,14,2
2,24 3951:24
3952:7
3960:11,16,21
3961:20 3962:9

O-L-A-S-A
3939:15

old 3918:20

older 3723:24
3775:6 3931:21

OLSON 3669:2

omitted

3678:17,25
3930:17

on-demand
3723:9 3728:14
3732:3 3735:10
3738:5 3739:24
3740:14
3741:16,18,20,2
2 3742:3
3759:22 3760:2
3761:23
3762:2,18
3785:6 3789:16
3793:7 3802:7
3804:12
3879:8,18
3883:10,12,15
3887:14 3891:15

ones 3774:13
3787:17 3788:1
3799:18 3819:25
3832:22 3834:5
3851:3
3857:11,12
3942:20

one-year 3683:18

online 3728:13
3730:6
3732:8,19
3736:13
3739:15,19,22,2
3 3742:8 3761:9
3763:4,6 3766:9
3770:23 3772:19
3773:2 3775:18
3776:8,10
3778:2,9
3787:23 3788:12
3790:13,24
3791:9,16
3804:18
3814:2,25
3815:1,2,4
3816:5,18
3830:15 3837:6
3879:18

onto 3885:22

open 3684:24

3685:11
3717:16,17,18
3728:9

open-ended
3821:23,24
3829:5,6
3858:18

operate 3775:18

operator 3765:8

opinion 3682:6
3851:24 3890:23
3893:19
3897:12,19
3898:6 3939:17

opinions 3751:21

opportunities
3740:8

opportunity
3751:11 3848:5

opposed 3734:9
3738:15 3790:17
3793:11 3805:25
3821:20

option 3735:8
3737:24
3738:3,7 3786:2
3787:13 3886:1

options 3734:9
3735:6,9
3738:11,12,15,1
6 3739:1,13
3744:10 3753:6
3785:7
3787:10,12,17
3790:20 3794:9
3803:13 3864:10

oral 3830:15

oranges 3865:5

order 3684:2
3717:14 3735:7
3744:2 3753:6
3828:3,25
3832:6 3855:19
3858:16,19
3897:15 3924:8

ordering 3753:24
3858:18,23,24

orders 3828:6

ordinal 3858:12
3859:4

ordinary 3957:25

organization
3755:8 3809:8
3816:22 3924:16

organizations
3809:4 3813:13
3816:16 3817:15

organized 3744:10

oriented 3809:14

origin 3855:1

original 3678:17

originally-filed
3679:1

originating
3854:25

Orioles 3933:6,7

others
3720:5,11,13
3731:11 3741:6
3775:19 3846:6
3857:14

otherwise 3726:22
3826:25 3880:25

ourself 3959:20

outcome 3734:8
3735:19

outline 3679:1

outlines 3817:2

outside 3685:14
3809:1,2
3902:23

overall 3684:25
3832:4 3885:23

overreporting
3935:2

Overruled
3676:10 3678:2

3802:22

oversee 3674:8

oversight 3779:11
3920:12

overstate 3766:2
3886:24

over-the-air
3739:14 3740:11
3787:4 3929:11
3953:5 3961:2

overview 3927:18

overwhelming
3729:8 3730:14
3741:17

owned 3721:10

ownership 3677:4

OXENFORD
3670:7

_____

P

p.m 3964:7

pace 3761:7

packet 3799:19

page
3678:10,16,22
3709:13,18
3722:9 3741:14
3742:15 3752:17
3753:11
3754:7,16,21,22
3755:11 3756:15
3758:24 3759:16
3762:12,13
3767:7 3770:14
3773:23
3777:5,23
3778:1,8
3779:14,17,18
3783:19
3786:6,11
3787:1 3791:14
3792:12 3796:11
3811:2,15
3812:12 3813:9
3817:20

3820:13,16
3827:15
3830:7,21
3833:20 3834:4
3835:1 3843:11
3853:25 3857:22
3869:3,4 3922:1
3944:23 3953:20
3960:13

pages 3668:8,9,10
3749:4 3772:23

paid 3728:13
3733:23 3741:16
3742:10 3785:6
3789:6,19,24
3790:20 3803:19
3804:9 3878:5
3879:21,25
3880:11,12
3929:21

Pakman
3896:14,21
3897:6

Pandora 3669:5
3670:21 3672:2
3717:23 3720:10
3722:4,17,21
3732:7
3733:12,13,16,1
8,19,20,23,24
3734:2,3,7,10,23
3736:4,14
3739:3,6,9,11,22
3741:1,7
3742:20 3744:23
3757:23 3758:2
3777:8
3779:8,23,25
3788:24 3789:8
3798:1 3805:23
3872:10,23
3874:24
3888:12,13
3927:7,9,10,13

Pandoras 3775:18

Pandora's
3751:11 3758:11

3796:13,19

panel 3710:12,20
3756:6 3806:4
3813:23,24
3816:6 3817:13
3837:20 3838:18
3863:22

paper 3808:13
3871:23

papers 3731:4
3808:11,21,23

paragraph
3676:1,6,8
3708:14 3755:14
3816:14 3843:15
3844:18

parental 3818:7

parentheses
3678:23,24

parenthetically
3733:22

Park 3669:10

participate 3728:3
3814:15 3815:16
3816:7

participated
3851:7

particular
3683:16 3685:2
3731:8 3745:10
3767:2 3779:14
3781:14 3784:8
3802:7,11,16
3808:1
3814:9,25
3815:3 3816:1
3823:23 3834:4
3837:22 3839:13
3841:3 3842:11
3847:22 3860:11
3919:14,22
3936:9 3942:15
3955:11 3957:6

particularly
3740:7 3776:2
3817:10 3869:10

3874:3 3877:20

parties 3936:15
3955:11,15,16,1
9 3956:25
3957:17 3958:17
3965:6,9

partner 3926:6

partners 3676:14
3684:16 3708:12
3795:20

party 3929:18,19
3934:24 3937:2
3938:4

pass 3824:9

passing 3935:6

past 3719:7
3725:16 3727:7
3744:11
3766:11,18
3798:13 3816:24
3817:9 3918:24

pattern 3732:5
3743:22

patterns 3805:8

pay 3676:23
3684:3,12
3723:13 3725:5
3728:20 3730:25
3732:3
3733:12,21
3735:9
3738:5,10
3741:18 3756:16
3757:13
3759:3,10
3764:19,23
3765:3 3766:3,8
3770:3,7,22
3771:4,6
3772:19 3773:1
3788:21 3793:6
3802:6,11
3815:11 3822:13
3823:23,24
3859:16,18,21
3876:13

3877:6,17
3880:4,6 3881:7
3882:9,12,14
3883:9,23,25
3884:3,4,7,11,14
,18,20
3885:7,11,14,19,
24
3886:4,8,17,21
3887:17,20
3888:3,10,20,25
3889:4
3890:7,15,18,24
3891:7,16
3892:5,8
3900:18
3901:3,21
3902:2,7

paying 3728:18
3734:9 3760:21
3793:12 3794:18
3824:1
3877:11,18,22
3879:1 3888:17
3894:3,8
3897:16

payment 3683:7
3708:5,7,11,12,1
7,23 3709:20
3710:13,16
3789:14 3923:2
3929:21,23
3930:10

payments 3674:10
3675:18 3684:15
3709:18 3878:14
3922:24

pays 3899:23
3929:9

P-E-D 3673:20

Pedersen 3671:2
3672:3,11
3673:8,17,20
3676:2,12
3678:5,13
3679:12,16
3680:4,6
3682:12 3683:3

3708:3 3709:8

Pedersens 3673:17

Pedersen's
3675:24

Pederson 3673:21

peel 3878:24,25

peer-reviewed
3919:5

penalty 3794:6

Pennsylvania
3718:20

penny 3936:18,19

people 3680:21
3682:7 3723:19
3724:14
3725:3,14
3726:14 3728:1
3729:5
3730:8,12,13,24
3732:6,19
3734:1,8
3735:17 3737:19
3738:24
3739:18,20
3740:8 3741:4
3742:4,5
3744:9,19,20,25
3745:18
3753:3,7
3755:22
3757:11,17,19
3758:12 3759:1
3763:15,17
3765:23,25
3775:5,17
3776:2,7
3779:19,24
3788:16
3789:18,23
3790:4,13,18
3795:14,15
3800:19,20
3801:7,9,12
3802:6
3803:4,15,19
3805:22
3815:2,12

3818:11
3819:2,5,10,14,1
8 3821:13
3822:11,22
3823:19 3824:13
3826:16 3828:21
3831:10
3832:6,21
3833:9,13
3834:12,20
3838:3,18
3839:17 3840:6
3845:4,16
3846:15
3847:9,16,25
3848:3,9,10,18
3850:14,21,24
3851:14 3852:9
3853:3,21
3854:3,10
3856:1,14,18
3857:18
3858:2,22
3859:16,18
3863:10,12
3864:1
3865:4,17,25
3866:10,15
3867:3,6
3868:1,5,13,15
3869:8,25
3871:24
3885:13,18,25
3892:5 3901:2
3928:11 3929:15
3930:7 3931:13
3932:5,13,15,22
3935:11
3958:5,15
3959:17 3960:9

people's 3727:10
3788:5 3791:23
3846:5 3862:8
3871:2 3919:4
3959:9

per 3818:5 3823:1
3847:12 3855:24
3889:20 3893:11
3951:3

perceive 3821:8

percent
3724:16,18,19
3727:13,17,18
3729:2,9,10,11
3730:11,16,21,2
3,24 3732:12,17
3733:2,3,8
3734:4,5
3737:21
3738:1,3,4,9
3740:4,10,13
3741:9 3743:12
3745:15 3757:11
3758:11
3759:1,11
3777:11,12
3778:6,10
3779:24
3783:23,24
3790:13
3799:3,7,10,12,1
7,23,24
3812:22,23,25
3813:2 3819:3,4
3820:3 3821:14
3832:8
3833:7,16
3834:24
3835:13,15,17
3836:6,9
3845:19 3847:21
3848:23
3849:3,4 3850:4
3851:10 3852:14
3857:6,7,11,13,1
4,25
3860:2,7,14,19,2
2,24 3864:5
3867:23
3868:1,2,5,6,12,
14,15 3885:10
3886:8,23
3890:25 3891:1
3927:23
3928:9,23
3931:25
3932:2,13,14,18,
20

percentage
3724:16
3729:5,23
3738:8 3772:25
3775:23,25
3791:20 3792:20
3800:9
3803:7,22
3820:25 3885:6
3922:25
3923:1,14
3924:10
3927:19,21,22
3931:8 3944:5,8
3945:13 3949:18
3950:18,25
3951:8

percentages
3727:16 3741:10
3805:6,7 3825:7
3848:20 3859:5

percentile
3858:1,4,6
3868:17

percentiles
3857:23 3867:21
3868:19

perfect 3803:1
3859:10

perform 3942:13

performance
3668:9 3874:20
3877:6,17
3881:7
3898:4,23
3949:18

performed
3941:17 3942:10

perhaps 3767:23
3880:9

perimeter 3827:13

period 3877:4
3880:19,20
3881:13,14
3919:3

permanent

3787:20
3788:7,13

Permission 3948:5

permitted 3825:4

perpetuity 3794:8

per-play 3944:17
3945:3,12,17,20
3946:7,14

person 3814:15
3823:2,3
3846:11 3854:19
3860:3 3867:4
3871:6 3934:20
3936:3 3957:15
3958:17

personalities
3681:15

personality
3814:12

personally 3854:1

perspective
3847:4

pertinent 3725:6

Peterson 3671:13
3872:11,19,25
3873:5 3874:25
3875:2,7 3876:3
3881:18 3885:5
3892:15,23
3893:4

P-E-T-E-R-S-O-N
3873:6

Pew 3754:7
3755:4,7

Ph.D 3671:10,16
3807:24 3872:19
3873:19 3918:9

phone 3727:20
3795:20 3830:19
3831:13 3832:22
3883:15

phones 3723:24

phrase 3844:8,10

3851:25 3889:25

phrases 3752:1,5
3795:3 3842:12

physical 3677:15
3727:9,15
3936:6

pick 3798:3
3856:2,8 3858:2
3865:12 3954:20
3957:14

picked 3817:8
3943:4

pictures 3882:11

pie 3754:24
3759:14 3790:7

piece 3748:18
3861:5 3930:1

pieces 3897:2

pig 3960:2

pilot 3795:9
3796:16
3797:4,6,8

pilots 3796:20

pinning
3744:12,13

pirate 3892:6,12

Pittsburgh 3918:6
3931:23

placed 3722:3
3789:25

placement
3862:25

plain 3844:12

plan 3831:21

planet 3676:17

planning 3675:4

plausible 3946:23

play 3681:11,20
3761:22 3764:11
3812:4 3828:13
3835:24
3837:8,9

3846:10 3847:1
3854:14 3866:4
3870:3 3889:20
3933:7 3951:3
3961:13

played 3682:2
3839:15

playing 3762:18
3860:5,7

playlists 3760:24
3761:2,6,17

plays 3676:24
3683:16,21
3827:11
3846:24,25
3847:20 3858:14
3865:18,20

please 3673:5
3685:14 3717:25
3718:4,7,11,16
3719:3,7 3722:9
3723:15 3734:12
3746:12
3748:14,24
3750:25 3751:3
3756:14 3759:15
3773:14 3795:7
3806:16
3807:6,19
3808:18 3809:10
3810:13
3811:2,14
3832:13 3833:20
3843:9 3853:24
3872:17
3873:2,7,15,22
3875:16 3878:11
3882:7,23
3902:23 3917:5
3960:25 3961:19

pledge 3717:12

Plenty 3934:22

PLLC 3669:18

plus 3730:13
3783:24 3795:16
3800:15 3801:3

podcast 3721:10

point 3680:15
3729:12 3730:17
3732:21,23,25
3733:6,9
3757:15 3759:11
3765:17 3798:13
3802:7,12,16
3812:9 3815:6
3816:9 3819:6
3827:7
3839:22,25
3841:11 3846:19
3892:1 3897:23
3898:22
3899:1,8
3902:20
3924:20,25
3925:1 3929:4
3934:16

pointed 3804:11
3805:4 3891:1
3892:11

pointing 3803:12
3832:10

points 3680:7,8
3730:4
3731:3,6,8
3796:14 3816:8
3821:5,7
3844:24 3849:16
3850:2
3852:5,8,17,18
3859:8
3861:8,19
3864:12 3869:24

polling 3719:6
3755:9

polls 3719:11,19

Pomerantz 3669:3
3671:14
3875:1,22
3892:22 3893:3
3894:22,25
3895:1
3897:2,3,5
3898:12,16

3899:2 3902:18
3938:17,24
3949:5 3963:21

pool 3929:18,19

pop 3870:7,9

popular 3681:18
3761:7

population 3724:1
3726:13 3730:21
3775:24 3800:25
3803:22
3817:22,24
3837:25
3838:8,11
3846:3 3871:19

portions 3962:24

posed 3729:12

position 3673:23
3718:24

positions 3767:3

possibilities
3944:14

possibility
3826:12,16
3829:18 3846:13
3881:3 3885:25

possible 3731:14
3735:2 3738:7
3743:9 3814:23
3820:11 3823:15
3871:13 3886:19
3923:22,25
3928:2,7

possibly 3794:23
3797:1 3823:16
3931:15

pot 3928:11
3929:21 3931:8
3944:9 3951:16
3956:1,7

potential 3744:1
3745:12 3753:2
3814:12
3832:10,11
3955:16

pots 3955:24

power
3802:12,20,25
3874:19 3891:9
3955:18

practice
3719:14,24
3809:9 3829:15

practices 3925:20

pragmatic
3823:12

pre-1972 3726:8

preceded 3933:9

preceding 3781:10

precise 3727:12

precisely 3765:22
3848:2 3899:14
3943:3

predictable
3681:6

prediction 3803:3

predictive
3802:12,20,25

prefer 3886:20

preferable 3881:6

preferences
3858:13 3862:8

prefers 3886:15

prejudice
3672:6,7
3751:10 3782:13

premise 3856:13

premium 3728:25
3729:4,18
3732:10
3757:2,13,24
3759:3,9
3762:11
3883:10,20,23,2
5 3884:2,22
3885:7
3886:6,16,17

prepare 3721:24

prepared 3882:10

preparing
3948:17

present 3670:16
3738:14 3777:17
3857:7 3882:5

presentation
3798:25 3853:10

presented 3774:17
3783:5
3789:8,10
3882:8

president 3718:25
3873:21

presidential
3719:12

Press 3719:12,20

presumably
3772:4 3854:23
3895:14 3900:3

presuming
3776:11

presumption
3820:9

pretest 3795:9
3796:16 3797:9
3824:13 3831:19
3832:9 3845:8
3850:24 3851:5
3866:9,12,14,15,
17

pretested
3795:11,13
3828:19

pretesting
3831:3,5,8

pretests 3796:20
3845:3,11
3852:6 3864:24

pretty 3685:7
3761:13

previous 3730:9
3781:5 3794:16

3821:23 3846:19

previously
3679:24 3776:14
3786:25 3790:23
3809:20 3832:3
3834:9 3863:8
3874:14

price 3729:12
3730:4,17
3731:3,6,8,10
3732:21,23,25
3733:6,9,23
3757:15 3759:10
3765:17 3766:2
3802:7,12,16
3884:12
3886:4,6
3887:13,15
3888:2,15
3891:8,13,19,21,
22 3892:2
3959:5,11,13,19,
24 3960:7

prices 3731:14,20
3822:10,13
3887:13,21
3888:7
3889:2,3,19
3890:14,19
3891:23,25
3892:9 3959:9

pricing 3891:14

primacy 3745:13

primarily 3963:1

primary
3719:9,13
3723:7,12
3741:14 3816:25

prime 3826:20

Princeton 3718:18
3918:25

principal 3923:20

principally
3677:11

principle 3895:10

principles
3924:4,23
3925:22 3926:11
3930:15 3946:17
3955:6
3959:17,22
3960:5

print 3749:23

printed
3749:21,22

printing 3678:24

printout
3749:6,17
3754:6

printouts 3717:8,9
3748:9

prior 3769:20
3772:4 3813:20
3818:9,10
3823:20 3826:9
3839:20

private 3677:4

prizes 3816:9

probably 3719:10
3782:9 3793:24
3796:25 3801:22
3836:8 3847:23
3872:12 3892:1
3902:18 3928:5
3937:17,18
3938:18 3943:18

problem
3744:18,20
3825:22
3830:14,22
3845:16 3863:21
3866:21
3871:17,20
3928:18 3929:8
3932:23 3933:23
3934:5
3954:22,25
3956:4 3958:19

problematic
3864:20

problems 3681:10

3795:21 3824:14
3831:14 3864:2
3951:17 3958:25

procedural
3936:14

procedure
3743:25 3936:12

procedures
3814:23
3937:6,11

proceeding
3721:25 3722:25
3725:6 3741:13
3747:22 3767:11
3768:1 3810:11
3811:19,20
3837:1,20,23
3874:21 3875:8
3892:17 3893:10
3942:24 3964:6

proceedings
3965:5,7,10

process 3675:19
3677:18
3683:11,23
3684:13,17,25
3685:7
3708:10,11,22
3751:19 3795:13
3796:7 3825:19
3891:23 3925:7
3928:12

produce 3824:7
3826:17
3834:9,14
3840:22,25

produced 3747:22
3748:4,8 3750:6
3772:3 3783:8
3812:17 3846:16

produces 3840:18
3848:5

product 3684:10
3685:4 3764:24
3765:4 3766:4
3802:11 3864:16

production 3769:4

products 3763:3

professional
3678:1 3813:18
3919:4,6,18

professor
3767:14,16
3807:1,15
3810:4,6,10
3811:18 3817:20
3820:13 3825:3
3828:24 3831:1
3836:11 3858:9
3867:15 3869:1
3917:12,18
3918:13,18,19,2
2,24 3921:6,9,12
3922:13
3923:12,22
3925:11 3933:11
3934:15 3938:15
3939:10,17
3940:11
3941:5,25
3944:3
3947:1,5,9,15
3948:4,16,22
3949:15,16,25
3950:17 3951:7
3952:1,4,8
3953:8 3954:14
3960:12,23
3961:6,21
3962:14,21
3963:2,8,17,18

proffering 3781:4

profile 3818:14
3819:23

profit 3894:13,15
3895:7,16

profits 3892:3

program 3681:25
3747:23
3748:3,12
3774:23 3783:8
3812:18 3849:13
3852:15 3861:11

3929:14

programatic
3813:3 3823:10

programming
3823:10
3840:13,18
3842:21 3843:19
3854:16

programs
3747:17,23
3750:5,18
3823:24 3862:9
3919:12

projections
3677:13,14

projects 3720:16

prominent
3731:10

promoted
3674:1,22

promoting 3763:3

promotion 3876:8
3902:16

prompted 3850:17

prong 3922:22
3945:22
3946:9,16

proper 3743:25

properties 3859:7

proposal 3679:13
3680:17 3922:21
3923:3,15
3927:20
3929:5,7 3931:5
3933:24 3934:18
3944:9
3945:21,24
3946:1,9
3950:24,25
3952:19 3956:14
3958:9

propose 3734:20
3837:19,22

proposed 3679:17

3729:13 3794:13
3862:7 3922:24
3953:23

proposes 3928:10

proposing
3679:18 3748:16

pros 3951:5,7

prove 3826:11

proven 3725:13

provide 3753:3
3774:2,3,6
3840:13 3851:23
3882:15 3896:2
3942:13
3950:2,8,12
3958:11

provided 3678:19
3742:25 3744:2
3753:15 3756:20
3767:10 3770:23
3773:2
3784:17,18
3796:24 3812:22
3818:3 3843:1
3942:12 3949:12
3950:11

providence
3740:20

provider 3813:24

provides 3816:22
3849:11 3882:3
3900:21

providing
3708:6,7

provision 3709:20
3794:14

prudent 3880:23

psychology
3829:22

public 3668:11
3673:2 3679:1
3685:15 3708:1
3711:1
3717:1,12
3723:13 3751:21

3844:4 3892:24
3902:24 3917:1
3920:12 3965:13

publication
3919:23

publications
3808:19 3919:14

publicly 3775:12
3959:18

publicly-available
3769:12

published 3808:22

pull 3683:13
3717:21

punish 3848:10

purchase 3765:21
3787:14 3788:15

purchasers 3728:2

purchasing
3725:4,25
3726:6,7 3727:9
3765:5,18
3787:13
3803:2,8

Purdue 3807:23

pure 3949:17

purpose 3780:21
3859:17 3892:16

purposes 3680:1
3837:11

pushing 3822:16

putting 3677:12
3824:23

_____
Q
_____

qualification
3886:11

qualified 3721:22
3802:18 3810:7
3818:21 3875:3
3921:10 3937:16
3938:11

qualifies 3824:22

qualify 3736:6
3820:9 3935:7

qualitative
3831:9,16
3835:8

qualitatively
3831:10

quality 3683:19
3684:7 3764:2,6
3819:20 3826:18
3827:22 3828:22
3831:25 3864:6
3888:15,16,18

quantitative
3820:24 3866:15

quarter 3868:15

question 3685:10
3709:2,4
3710:23
3724:11,23
3725:1,9,17
3726:15,21
3727:7
3728:8,9,10,12,1
3,23
3729:6,11,16,23
3730:6,9
3731:21 3732:5
3733:19
3734:16,18,19
3735:20,23
3736:9
3737:6,19
3739:4,7 3741:3
3742:11,14
3743:24
3744:11,14,18
3750:4,13
3752:2,7,18,21
3753:12 3754:2
3755:22 3756:24
3766:18,25
3770:7 3771:19
3772:25
3773:8,23
3774:3 3781:19
3782:10
3785:12,14,16,1

8,21,22
3786:4,6,10,15
3787:1,11
3788:3 3789:1,2
3790:5
3792:8,23
3793:2
3794:16,18,19,2
0,24 3795:6
3797:4
3798:15,17
3800:17 3801:10
3802:21
3804:1,23
3805:13 3816:11
3819:8
3820:16,20,23
3822:3
3823:2,6,11,13
3826:5,8,9,22
3829:8
3831:7,23
3832:1,8
3838:22,23
3839:21
3841:6,15,24
3842:18,19
3843:6
3845:5,13,14
3846:9 3849:23
3853:9,15,20,23,
25 3855:20
3858:9,17,23,24,
25 3859:23
3862:6,17
3863:14 3864:2
3865:13
3866:8,16,22
3867:4,14,17
3869:12,14,17
3870:2,5,19
3877:15 3891:18
3892:15
3894:19,24
3897:4 3923:22
3939:24 3940:5
3942:22 3949:22
3950:4 3952:6
3953:10 3958:14

3961:9

questioner
3752:12

questionnaire
3728:10 3734:18
3754:6

questions
3708:4,25
3709:3 3725:11
3726:10,11,12,1
8 3727:1
3736:11 3737:3
3740:3 3742:13
3743:7,8 3744:6
3745:13 3746:3
3747:14 3750:7
3751:20
3752:1,5
3753:8,10,11,13,
22 3755:23
3756:5,16,21,25
3759:19 3764:18
3766:11
3770:3,20
3775:3
3781:7,9,20
3782:24
3783:2,10,13
3785:19,24
3788:18
3789:4,13
3792:5 3793:20
3794:3,11
3795:11,14,16
3797:12,21
3798:5,10,12
3800:2,11
3802:4,5
3803:12
3804:6,12
3805:20 3806:10
3818:23
3819:12,16
3820:5 3821:23
3827:17,18
3828:20 3829:5
3831:14
3842:9,12
3843:5,12

3845:11 3848:16
3849:1 3851:3
3853:8 3855:21
3860:1
3866:11,20,25
3867:13 3869:1
3871:4 3892:21
3899:4
3938:16,25
3939:18 3952:12
3960:17 3962:10

quick 3870:19

quicker 3675:21

quickly 3820:5
3832:19

quite 3748:10
3771:11 3822:22
3833:17 3835:10
3853:4 3892:7

quote 3755:17
3767:8,11
3860:12 3924:21

quoted 3720:23
3920:2 3943:3

quoting 3783:22
3962:1

R

race 3724:1

radio 3669:22
3674:5
3681:11,13,15
3717:12
3719:15,24,25
3720:3,4,11
3721:9,15
3734:21,24
3735:1,3,12
3736:12,14
3737:20,21,22
3739:14,23,24
3740:11 3766:10
3776:8,10
3778:2,9
3786:19,23
3787:4
3790:13,15,24

3791:8 3811:24
3812:3,19
3818:4 3819:9
3823:18
3826:6,14,17
3827:7 3833:11
3835:9,23
3836:1 3837:6
3838:4 3839:13
3840:3,11
3841:20 3842:5
3843:7
3845:14,18
3846:20,22
3852:9 3853:12
3854:8 3859:19
3865:20 3870:2
3874:17 3896:5
3900:8 3931:24
3932:1 3954:11

raise 3917:5

raised 3750:4

ran 3748:4

random 3735:7
3961:24 3962:6

randomize
3829:10 3830:12

randomized
3828:6 3829:1
3845:24
3846:2,14
3858:18

range 3774:4,7,11
3775:5 3783:1
3812:25 3942:20
3954:11

rank
3858:16,19,23,2
4 3862:2

ranking
3858:12,13

ranks 3918:15

rate 3815:21
3819:4
3833:7,16
3837:19

3877:19,23
3879:25
3880:1,7,11,13
3881:6
3893:6,16
3894:20
3895:12,15
3897:15 3944:5
3945:21
3946:4,9,14
3949:18,19
3952:19

rates 3668:8
3679:17 3776:14
3833:3 3837:22
3876:21
3877:5,10,18,19,
22
3878:5,15,19,23
3879:2,21
3880:14,25
3881:6,8,14
3893:20
3894:4,9
3895:22,23
3896:1,22,23
3897:7,8,17,24,2
5
3898:2,4,7,10,11
,12,15,19,23
3899:22,24
3942:24,25
3943:7 3957:19

rather 3724:10
3743:9 3744:22
3745:17 3804:2
3880:13,25

ratio 3859:9,11
3887:13 3889:19
3890:6,14

rationally 3928:1

ratios 3889:18

Rdio 3728:19
3729:21

Re 3668:6

reach 3757:7
3877:25

reached 3741:12
3812:14 3897:22

reading 3679:22
3842:23 3870:9
3897:2

reads 3842:19
3869:13

ready 3718:1
3832:16 3872:11

real
3765:6,11,13,14,
19 3865:1
3871:7 3918:12
3919:10

realistic 3847:8

realize 3865:23

really 3675:20
3680:8 3745:7
3792:24
3822:5,17,22
3823:5
3824:1,10,15
3829:10 3830:2
3833:15,17
3836:7 3839:19
3840:22
3841:5,6 3850:5
3858:21 3859:8
3861:13 3867:10
3871:10 3878:23
3889:5 3890:16
3898:25 3920:23

realm 3874:1

reanalyze 3877:24

reason 3797:12
3801:8 3822:17
3826:24 3840:17
3862:9 3864:19
3868:19 3871:21
3886:2
3889:6,10
3890:3 3896:4
3954:19

reasonable
3680:21 3682:7
3815:20 3818:2

3821:16 3828:21
3831:19,21
3849:17 3850:20
3864:22,23
3865:8 3897:7
3923:19 3930:13
3958:14,16

reasonably
3851:16

reasons
3801:18,24
3814:3 3822:10
3871:25

reason's 3826:10

rebuttal 3672:3,15
3721:24 3722:8
3754:12 3767:1
3783:20 3810:11
3875:7 3876:19
3883:3 3896:18
3947:11,16
3948:17
3950:1,20
3952:2,9
3963:9,10,14

rebutting 3767:2

REC 3671:2

recalculate
3897:14

recall 3766:6,16
3770:12 3771:19
3772:14,21
3785:9 3786:24
3791:1
3797:10,19
3798:8,17,22
3799:14,15
3800:6 3802:8
3803:9,16
3806:2 3831:23
3857:19 3899:6
3902:6 3950:4

recalling 3773:10

receive 3764:3
3820:1

received 3750:21

3808:5,14
3827:19

receiver 3837:14

recency 3745:13
3755:17
3830:7,13

recent 3766:14
3778:13 3830:10
3899:18 3920:2

recently 3673:25
3874:16,20
3929:13

recess 3746:9,11
3751:1
3806:14,15
3872:14,16
3962:17

recognition
3926:12

recognize 3678:7
3722:5 3848:2
3883:19

recollection
3745:8 3770:16
3771:14,16,23
3773:5 3777:15
3947:21

record 3673:18
3675:13
3718:5,10
3719:22 3755:8
3757:17 3774:10
3797:8 3802:14
3807:9
3917:18,22
3942:1 3948:14
3952:10 3965:4

recording 3668:8
3797:11 3835:19
3862:23
3863:7,19
3865:14

recordings 3668:9
3836:7 3877:7

recreated 3881:21

red 3671:2
3730:10 3738:1
3834:6,7

redirect 3709:3,5
3868:24

**REDIRECT-
EXAMINATIO
N** 3798:1

refer 3812:20
3813:9 3837:12
3838:14
3841:9,14
3922:22 3947:22

refereed 3919:5

reference 3722:14
3792:8 3816:2
3827:25
3919:4,18

referenced
3683:11

references
3887:15

referred 3740:16
3747:14 3789:15
3947:24 3952:13

referring 3781:25
3840:1 3841:9
3926:2

reflect 3765:4
3820:16 3823:4

reflected 3729:16
3733:14 3739:5
3741:1 3770:21
3823:11 3848:15
3860:2,17
3890:25

reflection 3891:9

reflects 3886:23

refresh
3771:14,16,23
3947:20

refreshing
3770:15

refused 3774:2

3782:16,18
3800:3 3801:13

regard 3676:5
3726:6 3731:3
3740:16 3744:18
3783:17,20
3792:23 3795:1
3805:22 3845:13
3850:13 3855:8
3876:6,25
3877:21 3879:23
3881:12 3891:14
3898:4

regarding 3710:12
3784:10 3900:15

Rege 3931:25
3932:6,13,16,19
3934:1

region 3724:2

regret 3802:2

regular 3790:25
3791:23

regularly 3736:21
3874:5

regulation 3874:1
3938:6

regulations
3938:1,2
3953:23 3957:13
3960:8

REIN 3669:13
3670:3

relate 3727:21
3780:20 3796:14

related 3674:14
3804:1 3816:24
3878:4,17
3890:19 3965:6

relates 3741:1
3780:18

relating 3719:14
3720:20 3762:15
3782:24 3796:14

relationship
3887:20 3888:2

3889:3 3890:23

relative 3811:22
3812:17,18
3816:19 3834:19
3840:7,12
3841:2
3844:11,17
3847:3
3849:21,23,25
3850:1 3851:25
3852:18
3853:4,5
3855:7,15
3856:10,11,21
3858:14,24
3860:2,21,22
3862:2 3864:13
3881:1 3883:10
3889:19
3945:24,25
3946:1,3 3959:5
3965:8

relatively 3724:16
3801:22
3803:6,21
3871:10

relaying 3753:14

released 3791:12

relevance 3780:23

relevant 3725:2
3781:12,15,17
3818:14 3840:17
3862:15 3900:22
3950:9,11,13,19
3951:9,20
3953:1,11,13,16,
25

relevants 3950:2

reliable 3826:25
3827:19 3833:4
3835:11 3870:21
3872:1

relied
3754:9,11,18

relies 3963:8

Religious 3670:2

rely 3871:1
3881:10

remain 3717:18
3820:2

remaining 3813:2

remember
3743:13 3858:17
3879:6 3947:25

remove 3946:8,15

removing 3923:8
3945:22

reordered 3892:24

repeated 3827:6

repeating 3828:14

repeats 3869:16

rephrase 3800:17

replace 3735:2
3738:20 3776:7

replacement
3935:21 3936:7

replacement's
3936:4

replacing
3739:3,12,23
3740:21

report 3708:6
3724:4,8
3727:22
3737:11,13
3756:10 3768:10
3773:24 3774:16
3778:14 3779:1
3780:12 3782:8
3799:9,13
3805:22 3810:1
3819:1 3827:24
3828:11 3843:2
3862:22 3865:23
3866:2 3878:13
3889:16 3897:14
3898:13 3901:2
3920:3 3921:16
3926:16,18,21
3930:20 3931:20

3932:24 3933:24
3947:22
3951:12,21
3952:13,24

reported 3736:25
3737:13 3778:9
3781:21 3798:7
3799:3,4
3836:10 3900:17
3901:10

REPORTER
3965:1

reporting 3670:24
3791:15 3848:19
3900:20

reports 3708:12
3758:4 3766:14
3775:10 3777:16
3779:18
3781:6,10,23
3782:22,23
3808:24 3874:12

represent 3747:12
3815:13 3867:22
3939:12 3942:25

representation
3710:2,12
3816:2 3849:18
3862:8

representative
3723:18,23
3812:10 3841:20
3871:18

represented
3883:13

representing
3917:19

represents
3884:25

reproduction
3883:2

request 3750:22
3771:25 3796:14

requesting
3845:12

require 3708:6
3942:7
3943:8,9,17

required 3829:2
3941:22

requirement
3923:8 3925:3
3934:19

requiring 3923:5

rerun 3684:1

research
3718:22,24
3719:4,5
3720:15,18
3721:1,18,19
3746:1
3753:19,23
3754:7,8
3755:4,7,15,21
3766:9 3768:7
3782:7
3808:2,4,6,11
3809:18 3810:5
3813:14,19
3816:16,17
3817:6,8 3821:3
3827:22 3828:1
3829:22 3873:25

researcher
3826:11

reserve 3750:15

residents 3817:25

respect 3708:4
3755:22 3789:14
3811:22 3876:10
3923:13 3958:24

respected 3755:8

respond 3753:7
3765:25 3767:25
3802:6

responded 3737:6
3819:3 3845:17
3850:15

respondent
3753:16 3773:24

3774:8,12
3793:15 3801:18
3824:22 3825:12
3826:20 3828:12
3830:1
3839:22,25
3882:14 3901:22
3902:9

respondents
3724:11 3732:23
3742:25 3744:3
3745:9
3752:6,16
3753:20 3755:16
3756:22,25
3760:4,7,23
3761:21 3762:22
3763:9,18
3764:1,9,20,23
3765:3,16
3766:1,7
3772:18
3773:1,7
3774:2,6
3785:12,17
3786:3 3787:11
3788:20 3789:4
3797:16 3798:7
3800:3,8,9
3818:19,21
3819:22 3825:15
3826:6 3838:25
3839:3,9 3842:2
3844:14,19
3845:20 3848:22
3849:1 3851:23
3855:6,7,14
3860:18
3862:1,13
3870:1
3882:9,13
3884:18,20
3885:2,6 3886:4
3887:21
3891:2,3,4
3901:17

responding
3767:8 3899:14

response 3710:10

3747:13 3749:15
3750:22 3753:6
3781:1,6
3785:11 3786:23
3787:2 3790:4
3796:13 3815:21
3819:4 3833:2,7
3850:20 3878:2
3951:25 3958:13

responses 3739:19
3753:15 3757:18
3783:2,9
3786:16

responsibilities
3674:3 3675:1

responsibility
3674:9

responsible
3674:13

rest 3832:24
3852:16 3876:18

restricted 3678:25
3685:16 3711:2
3843:23 3844:2
3902:25

restricting 3936:2

restricts 3935:16

result 3681:5
3724:10 3740:2
3750:9 3788:23
3789:6 3805:24
3831:5 3835:5
3858:23

resulted 3818:17

results 3672:6,7
3680:13,23
3726:21 3727:13
3728:22 3730:8
3732:11,24
3733:5 3741:7
3745:24 3748:2
3749:7,20
3756:21
3774:16,18
3775:4
3783:16,23

3793:20 3794:23
3805:5 3811:22
3826:25 3827:19
3828:5 3829:14
3833:1,5,23
3834:2 3856:21
3863:5,23
3864:7 3867:17
3877:20 3878:20
3881:20,21
3882:1 3900:16
3901:10 3926:15

retail 3888:2

retake 3851:10

retention 3744:20

return 3880:18
3881:1,12

revealing 3745:18

revenue 3672:12
3675:12,16
3677:13,15
3680:18 3681:24
3682:16 3919:21
3923:1,15
3925:19 3926:12
3927:20,21,24
3928:11,17,19,2
1,22,25 3930:1
3931:7
3944:2,5,8,9
3945:13,22
3946:8,16
3949:19 3950:18
3951:8,15
3953:4 3955:24
3956:6,7 3961:2
3962:5

revenues 3920:1
3924:10
3928:13,14
3932:7 3944:13
3954:15,22
3955:4

Reverend 3790:19

reverse 3855:18
3856:6

review 3683:19
3684:4 3834:4
3876:5 3879:10
3881:18 3919:24

reviewed
3679:12,19,24
3709:25 3876:12
3887:4 3896:17

rewards 3896:12

reword 3863:24

Rhapsody
3676:19 3728:19
3729:20 3735:11
3738:6 3739:25
3740:15

RICH 3669:6
3748:14

rid 3925:2

right-hand
3709:15 3792:12

rights 3681:1

rigor 3940:6,9,10

rigorous 3940:7,8

rigors 3940:2

risk 3764:25
3790:18

risks 3896:12
3949:17

Robin 3852:20

rock 3840:23
3856:14,15
3865:10
3870:7,10

role 3674:3
3675:10 3940:14

roles 3723:11

rolled 3675:7

Roman 3671:16
3917:6,23
3963:10,11

R-O-M-A-N
3917:24

room 3685:13
3795:20 3865:25
3902:22
3927:9,16
3930:8 3959:18
3960:9

Rosin 3671:6
3717:2,25
3718:4,6,21
3721:18,21,24
3722:24 3724:23
3738:14 3742:12
3747:9,13
3748:4,24
3750:19 3751:18
3756:14 3757:6
3758:2 3759:15
3764:22 3772:14
3773:21 3777:4
3778:24 3779:17
3780:10
3781:4,8
3782:21 3785:2
3786:16 3788:18
3790:11 3791:5
3795:9 3796:1
3798:3 3802:17
3805:20 3806:12

R-O-S-I-N
3718:13

Rosin's 3756:10

rotate 3743:10
3744:1 3745:9

rotated 3743:8,17

rotating 3745:17

rotation 3746:21
3747:2

roughly 3709:17
3886:8

rounded 3834:7

royalties 3676:23
3889:20 3923:14
3953:7

royalty
3668:2,7,20
3672:5 3674:13

3684:3,14
3922:24 3923:2
3930:9 3933:18
3936:13,17
3937:8
3939:20,22
3940:2,4,7,23
3941:17
3945:3,12,13
3950:18,25

Rubinfeld
3887:11 3888:7
3889:17 3890:5
3900:15 3963:8

Rubinfeld's
3876:16
3887:4,8
3888:5,9
3892:18 3900:24
3963:2

rule 3676:9
3727:22 3769:11
3820:10
3825:18,21
3936:10
3937:13,14,15,2
1 3959:21

rules 3680:19
3961:14

ruling 3771:13

run 3737:1 3750:5
3795:9 3801:9
3821:25 3832:20
3919:12 3956:17

running 3747:17
3774:23 3901:15

Rushing 3670:17

Russo 3670:24
3965:3

Ryan
3681:18,20,25

S

sad 3856:25

sake 3731:13

sale 3677:5,9

sales 3673:24
3674:6
3928:15,16

salesman 3935:22

sample 3723:19,23
3727:14 3728:24
3729:2,24
3732:13,14,17
3733:2,15
3741:23
3783:21,24
3800:25 3801:11
3812:10 3818:18
3831:20 3832:17
3833:3,18
3841:20,21
3845:24 3846:2
3850:7 3854:19
3857:2 3866:19
3901:16,18,22

sampled 3818:6

sampling 3801:13
3846:14 3871:17

San 3674:7 3919:2

sang 3933:22

sanity 3889:25

satellite 3721:9

satisfaction
3817:9

satisfied 3684:11

save 3781:21

saw 3732:16
3741:8,11,19
3742:4 3743:8
3745:15 3762:14
3824:2 3866:16
3869:8
3929:18,19

scale 3849:17
3859:9,10,11
3869:22

scaling 3821:2
3859:7

scatter 3734:8

schedule 3683:7

school 3718:19
3802:1 3807:15
3918:3
3935:13,25
3936:5

science 3685:3
3808:17 3809:6
3918:16,17

scope 3675:23
3677:21 3780:19
3806:8 3940:23
3951:25

SCOTT 3669:19

screen 3717:7
3723:3 3762:19
3792:9 3843:3
3869:8 3922:16

screened
3819:14,25

screener 3819:11
3846:9 3853:20

screening 3818:23
3819:12

screenshot 3869:7

Seacrest 3681:18
3682:1

Seacrest's 3682:8

seated 3673:5
3746:12 3751:3
3806:16 3872:17
3917:5

sec 3675:3 3791:3
3919:7 3920:13

second 3680:12
3683:6,18
3723:12 3737:22
3755:14
3786:1,2,18
3791:14 3829:17
3832:5,8
3835:22
3843:9,14

3847:11 3858:13
3861:16 3862:17
3864:1 3869:3
3875:5
3882:20,24
3886:20,22
3888:21 3930:4
3934:16 3959:8

secondary
3892:18

Secondly 3813:17
3814:9 3822:20
3835:11 3846:4

section 3678:23

sector 3738:23

seeded 3736:5

seeing 3684:8

seek 3790:19

seeking 3742:6

seem 3817:10
3864:18 3946:19

seemed 3815:1

seems 3725:7,15
3743:10 3780:18
3878:23 3897:23
3946:20,23

seen 3749:22
3762:12,15
3775:4 3805:5
3823:20 3887:19
3922:22 3938:22
3939:1 3942:4
3951:22 3952:15
3955:14,22,23
3957:1,9,24

segment 3814:25
3854:5

select 3731:7

selected 3815:25
3866:18

selecting 3886:1

selection 3835:25

self-selected

3815:23

self-terminated
3833:15

seller 3942:17
3943:2 3956:3

sellers
3943:7,10,13,16,
21

selling
3959:5,11,12,19,
24 3960:7

sells 3929:8

sends 3929:15

senior 3677:5
3684:4 3919:13

sense 3684:9
3723:12 3724:13
3725:22 3727:23
3765:10 3793:20
3797:4,7
3815:11 3819:15
3839:8 3933:20
3953:16

sensitivity 3766:2

sent 3930:11

sentence 3755:14
3792:16 3797:2
3869:11 3944:24
3954:12 3960:23

separate 3866:17

SEPARATELY
3685:16 3711:2
3902:25

separation 3959:4

September
3674:23,24

series 3720:15
3724:6 3756:24
3768:16 3769:13
3803:11

serious 3764:25

serve 3723:11
3892:16

served 3769:2
  3809:5,20,23
  3874:7,10,14
  3919:6,11
  3920:4,6,8
  3921:1

servers 3683:14

serves 3889:21

service 3676:13,17
  3728:18,21
  3730:6
  3731:1,21
  3732:3 3733:23
  3735:11 3736:15
  3738:6,10
  3739:22,24,25
  3740:15
  3741:5,18
  3742:10
  3757:12,14
  3759:2,4,10,18,2
  1 3760:10,21
  3761:2,22
  3762:24
  3763:10,16,19
  3764:10,24
  3765:4 3766:4
  3772:20 3785:6
  3787:23 3788:24
  3789:5,7,19,21,2
  4 3794:19
  3802:7
  3804:9,13
  3815:4 3818:2
  3883:10,12,15,2
  0,24,25
  3884:2,5,8,12,22
  ,23 3885:7,14
  3886:7,9,16,18,2
  1 3887:1,15
  3900:5,8,11
  3927:4,7 3963:7

services 3673:24
  3676:18,25
  3723:9,10,14
  3728:13,15,19
  3731:10
  3732:3,8,20

3734:21,24
3735:3 3736:13
3738:22
3739:15,20
3741:2,16,19,20,
22,24
3742:2,4,7,8
3757:20 3759:8
3761:10,16,18
3762:1
3763:2,13,22
3764:5,15
3768:12
3775:3,18
3779:20 3785:5
3788:8,13
3789:11,16
3790:14 3793:7
3803:14 3804:7
3805:24 3812:11
3813:4 3815:1
3816:23 3824:4
3834:24 3836:3
3837:23 3876:14
3882:10 3885:20
3886:10,12,14,2
4 3887:14
3890:8 3891:15
3892:6,10,12
3899:5,17,20
3900:2
3926:20,23,24,2
5 3927:2,3,15
3940:12,20
3951:18
3963:4,14

SESAC 3874:18

session 3668:11
  3673:2
  3685:15,16
  3708:1 3710:25
  3711:1,2
  3717:1,16,17,18
  3902:24,25
  3917:1

sets 3890:21

setting 3942:18

settlement

3880:1,13
3881:14 3893:16
3894:21

seven 3681:12

several 3743:3
  3749:4 3756:1
  3795:17 3796:13
  3817:7 3823:20
  3834:3 3835:17
  3854:3,11
  3855:20 3867:9
  3883:7 3929:10

share 3720:25
  3721:1 3861:8
  3884:25 3885:1
  3946:16

shared 3673:24

sheet 3882:21

she's 3928:5
  3935:20

shopping 3823:21

short 3746:11
  3751:1 3801:22
  3806:15 3853:15
  3872:16 3881:11
  3928:1

shots 3843:3

showed 3742:21
  3785:4

showing 3778:3
  3782:5,6
  3882:11

shown 3732:6
  3742:23 3755:21
  3757:18 3762:14

shows 3734:13
  3759:6 3877:2
  3883:9 3932:8
  3934:3

shrink 3928:20,25

shrinkage 3929:4

shuffled 3735:6
  3743:21 3744:15

sic 3795:2

sides 3769:9

sideways 3946:5

sign 3884:7

signature
  3678:11,12
  3722:11
  3754:16,21,22
  3811:5 3875:18
  3922:1,4

signed 3685:13
  3902:22

significance
  3775:13 3884:13
  3899:19

significant
  3791:18 3802:12
  3885:13 3888:23
  3899:17

significantly
  3725:20 3877:22

similar 3721:3,12
  3730:3
  3732:1,15,16
  3734:23 3736:15
  3738:10 3740:25
  3741:8,10
  3743:21 3765:17
  3766:11 3780:5
  3781:9 3783:1
  3794:12 3896:8

similarity 3887:23

Similarly 3937:7

simple
  3821:4,9,17
  3824:8
  3828:10,13
  3840:17
  3856:13,16
  3862:9 3869:18
  3871:10

simpler 3867:3

simply 3724:14
  3738:3 3782:5
  3790:14 3792:16

3819:10 3821:6
3824:23 3865:15
3867:6 3897:23
3899:9

simulcast
3682:9,10
3811:24
3812:3,20
3818:4 3819:9
3823:18,22
3826:7 3827:7,8
3833:12 3835:8
3836:2 3837:6
3896:5,7 3932:6
3961:2

simulcaster
3837:12

simulcasters
3894:24 3895:6
3952:10 3953:24

simultaneously
3930:11

sing 3933:10

singing
3933:14,19

single 3738:8
3861:7 3929:9
3930:10 3945:17

sir 3755:25
3766:19 3770:13
3773:14 3777:15
3790:23 3816:12
3924:14 3939:21
3940:13,19,21,2
5 3948:19
3953:9 3961:18

SiriusXM 3669:22
3670:19
3785:18,21

site 3736:5

sitting 3784:14
3867:5 3957:19

situation 3734:20
3794:12

situations 3840:5

six 3861:22
3862:14,18
3863:10
3864:10,16
3919:17

sizable 3775:24
3861:9

size 3721:7
3723:19 3732:13
3758:6 3803:3
3804:8 3832:17
3833:3,18
3954:11

skips 3763:20,23

slice 3740:16

slices 3747:15

slide 3728:6
3779:18
3780:6,7,8
3785:3 3790:6
3814:10 3831:2
3878:9 3882:24

slides 3717:21
3724:7 3754:15
3799:5 3831:1
3842:25

slight 3673:25

slightly 3679:21
3831:24 3842:23
3887:2

slot 3746:24
3747:1

small 3724:16
3729:23 3749:12
3753:1 3756:2
3770:22 3771:6
3773:1 3793:19
3803:6,21
3815:14 3851:1
3866:19 3921:2

smaller 3676:3
3682:19 3725:20
3737:3 3784:4

smart 3928:6

Smartphone

3740:7

smoke 3801:24

smoothly 3925:8

so-called 3830:7

social 3720:22

Society 3808:16

software 3748:18
3825:11,18,24
3850:17

sold 3677:3,4

soldier 3934:12

solely 3880:24

somebody 3745:4
3774:23 3800:23
3820:9
3825:9,19
3828:7 3830:19
3835:23 3841:13
3847:10,23
3852:20 3854:17
3959:25

somebody's
3933:18,23
3934:4

someone 3738:20
3739:19 3752:12
3771:3
3783:15,16
3802:2 3825:23
3856:21 3857:5
3886:15,19
3888:13

someone's 3803:2

Somerville
3718:22

sometime 3772:16

somewhat
3724:18 3727:7
3729:7,11
3733:3,7 3734:6
3757:13
3759:3,9

somewhere 3685:1
3758:2 3801:7

3834:17 3836:9
3922:17

son 3933:5

song 3683:16
3846:24
3848:14,17
3866:5
3933:17,19,22

songs 3676:24
3681:21,22
3727:10 3728:16
3760:4,12,16
3846:25 3847:12
3866:5

Songza 3900:5

Sony 3838:15

sorry 3718:10
3742:6 3743:1
3746:6,15
3760:15 3782:17
3786:10 3796:10
3802:3 3807:13
3815:16 3836:24
3839:19 3843:10
3849:8 3851:15
3861:20 3879:19
3889:11
3941:5,23
3945:24 3947:13

sort 3721:5
3725:13 3731:13
3732:4 3740:8
3793:9 3818:14
3834:8 3835:17
3839:8 3842:17
3846:13
3859:13,25
3869:22 3889:24
3922:1

sorts 3775:9

sought 3838:1

sound 3668:9
3764:2,6
3835:18 3836:7
3862:23
3863:7,19

3865:14 3877:6 3888:15,16,18

SoundExchange 3669:2 3670:16 3672:5,12 3675:10,11,14,17,25 3676:3,5 3679:12,18 3681:1,2 3682:16 3708:5,13,18 3747:7,12 3748:3,4 3751:7,8,15 3756:8 3767:9 3768:1,6 3771:8 3776:23 3777:1,22 3778:18,21,25 3836:20 3837:1 3878:15 3893:2 3922:21 3923:4,18 3927:23 3928:10 3933:21 3937:3 3939:8,13 3944:10 3950:24 3956:14 3960:1

SoundExchange's 3680:16 3767:4,10 3927:19 3945:21 3952:19 3953:23 3958:8

sounds 3758:13 3943:4,5 3962:1

soup 3677:17

source 3806:1 3827:25 3835:10,25

sources 3680:18 3739:16 3740:5 3743:14 3754:9 3824:6 3827:24 3838:13

South 3669:3 3720:6

Southern 3720:5

space 3761:10

speak 3684:23 3721:14

speaking 3678:5 3879:24

speaks 3794:25

specialization 3719:15

specialty 3871:3

specific 3679:19 3681:9 3719:15 3746:24 3764:20,24 3765:3,16 3766:3,5,6,8 3771:3 3773:6 3774:11 3805:6 3827:12 3854:16 3859:4 3927:5 3959:6

specifically 3676:2 3739:10,21 3742:19 3744:23 3761:24 3784:5 3826:6 3926:14

specified 3844:16

specify 3937:10

spell 3673:18 3718:10 3807:9 3873:2 3917:21

spelled 3718:12 3873:6

spelling 3807:5

spend 3739:10,11,12 3742:19 3803:8 3805:23 3936:20,21,22,24

spending 3727:3 3738:21 3803:15,23 3804:1

spent 3675:13 3721:13 3727:8,14,18 3739:2 3742:1,3

split 3774:24 3780:5 3781:20 3782:23 3783:17 3798:21 3929:24 3930:6,12

splits 3777:8 3779:19 3782:1 3783:9,21

spoken 3775:12 3863:8

sponsor 3814:17

sponsored 3929:16,18

Spooner 3790:19

sports 3845:20,21 3846:4,5,7 3854:20 3930:22

Spotify 3676:18 3720:10 3728:19,25 3729:4,18 3731:11 3732:10 3734:23 3735:11 3736:14 3738:6 3739:25 3740:15 3757:1,12,24 3758:14 3759:2,9 3762:10,11

spread 3871:19 3872:15

squarely 3781:11

squares 3859:13

squeal 3960:2

stable 3834:16

stage 3683:12,18

stand 3962:22 3963:23

standard 3827:25 3834:11 3844:23

3848:7 3884:5 3902:4,11 3920:10 3936:16 3937:4

standards 3720:18 3864:6 3920:7,11 3940:2,3 3942:19

stands 3937:19

Stanford 3918:23

start 3723:5 3803:15 3814:4 3815:19 3851:20 3880:3 3928:13 3939:17 3958:5

started 3723:21 3800:10,14 3801:2,4 3823:23 3900:9

starters 3818:1

starting 3675:12 3846:2 3896:5 3944:24 3962:20

starts 3678:22 3939:4

state 3683:24 3718:4

stated 3781:3 3785:3 3835:13

statement 3672:5 3708:6 3880:20,22 3939:23 3940:1,23 3941:17

statements 3674:14 3684:14 3940:4 3941:2

States 3668:2 3721:6 3758:16,21,23 3814:7 3815:13

stating 3807:5

station 3717:12

3736:5,12,14
3739:24 3770:23
3773:2
3826:6,14,21,23
3827:2,3,11
3828:11 3832:2
3838:25
3839:4,13,24
3840:18,20
3841:1,3,10,11,1
4 3842:22
3843:7,19
3845:15,18
3846:7,11
3847:19,20
3848:14,17
3849:14
3850:7,10
3852:15
3856:4,7
3857:1,3,8
3860:4,7,12
3865:12,18,20,2
1,24 3869:15
3870:4 3896:5

stations
3681:11,13,15,1
9 3682:10
3683:22 3734:24
3735:1 3739:14
3740:11 3787:4
3812:3 3826:17
3828:12 3837:7
3838:4 3839:16
3840:3,11
3841:20
3842:5,7
3846:10,20,22,2
5 3847:10
3848:4 3849:19
3853:12
3854:8,14
3855:1
3870:3,12
3932:2,18

station's 3842:21
3843:18

statistical
3833:1,19

3885:20

statistics 3724:1

statute 3931:11

statutes 3937:24

statutory 3674:10
3879:14
3880:6,11,13,14,
19 3881:13
3887:15 3893:6
3894:3,9,20
3895:12 3897:17
3899:24 3944:5

stay 3799:22

stayed 3878:16

step 3684:1,4
3828:25 3831:17
3925:2,10
3929:7,23
3930:3,4
3938:3,13

stepped 3731:13

steps 3928:20,24

Steven 3671:13
3872:11,19
3873:5

stick 3959:21

sticking 3945:3

stop 3729:15
3731:16
3788:6,7,9,13
3867:10 3888:22
3961:5

stopped 3860:4
3863:21

stops 3860:7

story 3791:7,18

straightforward
3724:11 3727:7

strange 3857:16

STRAUSS 3669:9

stream 3675:13
3728:15
3736:12,13

3739:23 3760:11
3933:4,21

streamed
3929:11,25
3930:6,7,10

streaming 3720:21
3734:25 3735:1
3761:10 3772:20
3775:3,18
3790:14 3791:16
3792:10 3879:8
3882:10 3883:12
3953:6

streams 3675:16
3677:15 3878:18

Street
3669:15,20,24
3670:5,8

Strickler 3668:22
3673:6 3710:23
3724:22,25
3725:24
3726:5,11,20,24
3727:2
3731:2,7,15,19,2
4 3735:22,25
3736:3,16,19,24
3737:5,10
3742:11,17,23
3743:3,7,17,23
3744:17,25
3745:3,14,22
3750:21
3752:9,23
3766:22,24
3767:6,13,16,19,
24 3768:3
3779:13 3781:24
3783:15
3784:1,8,12,16,2
2,25 3786:4,9,12
3792:7,18,22
3793:5 3794:1,6
3795:3 3797:14
3798:15
3799:8,15,21
3800:23
3801:3,12

3803:25 3805:10
3816:11,14
3817:14,18
3822:7 3823:8
3825:3,14,23
3826:3 3827:1
3828:24 3829:16
3830:4,13,24
3845:10 3846:17
3850:13
3851:6,22
3852:2,19
3858:9
3859:1,4,12,22
3867:14,19
3868:7,10,18,23
3875:4
3879:16,23
3880:8,17,23
3881:9,16
3883:1,6
3884:24
3889:11,14
3890:22
3891:4,18
3892:13
3894:18,23
3898:10,14
3899:4 3923:21
3924:15 3935:16
3939:4,6
3947:11 3948:12
3949:10
3955:9,14
3956:21,25
3957:9,18,22
3958:3,7,11
3960:10,18
3961:8,13,16
3962:19,23
3963:5,12,15,18
3964:4

strict 3811:25

strictly 3726:7
3809:2

strike 3790:4
3855:5,13
3901:25 3951:24

3952:6

strong 3822:18

stronger 3830:17

structure 3744:8
3837:20 3922:23
3923:5
3949:18,19
3950:18 3951:8

structured
3743:20

structuring
3744:5

struggled 3850:21

STRUM 3669:14

stuck 3960:2

student 3918:13
3931:20 3933:12
3947:6

students 3918:25
3931:23 3932:25

studied 3807:22
3942:3,4

studies 3772:17
3777:20 3873:25
3901:2,6

studying 3805:2,3

styles 3840:4

subbullet 3680:12

subcategorize
3865:9

subcategorizing
3864:6

subcomponents
3835:17 3836:6

subgroup
3732:12,25
3733:6,10
3784:2 3798:21

subgroups
3737:3,14,16
3799:4,6,16

subject 3682:6

3721:15
3750:17,19
3899:9 3902:14

subjects 3879:4
3892:23

submit 3810:10
3875:7 3921:19

submitted 3678:8
3768:1 3896:18
3921:21 3947:1

subpopulations
3726:13

subsample
3848:18

subscribe 3728:25
3729:3 3732:21
3733:18,23
3734:3
3757:1,12,24
3759:2,8
3788:22

subscribed
3732:10

subscriber
3888:17

subscribers
3719:21
3729:17,20
3741:22
3758:15,20,22

subscribing
3789:5,19,24

subscription
3733:12 3735:9
3738:5 3761:16
3762:1
3763:2,13,15,22
3764:5,14
3788:24
3793:6,12,13
3797:17 3804:9
3883:22
3884:5,7,12
3886:6,16,18
3887:13,14
3888:15 3889:19

3891:14

subsequent
3810:2

subsequently
3831:24

subset 3732:23

substantially
3679:23 3753:2
3879:2 3884:4

substantive
3785:16,22
3814:18

substitute 3723:10

substitutes
3741:21

substitution
3902:16

subtract 3960:14

subtractive
3928:12

succeeding
3777:16,20

suddenly 3717:11
3745:18

suggest 3749:25
3750:12
3805:11,16
3889:24 3894:1
3945:23

suggested 3753:20
3898:24 3924:4

suggests 3755:15
3891:13 3946:17

suitable 3926:12

Suite 3669:20
3670:9

suits 3874:4

sum 3736:10
3821:1,2,19
3822:6 3823:6
3825:8,13
3828:18 3833:1
3849:16 3850:3

summarize
3680:14 3878:22
3922:13 3934:16

summarized
3680:8 3854:6

summary 3924:19

summer 3933:3

summing 3851:7

supermarket
3765:8,9

supervised
3809:16

supervision
3674:15

supplement
3941:8,10,14

supplemental
3963:12,13

supply 3840:9
3841:7 3847:5
3848:5

support 3816:22
3817:3 3876:15
3887:7 3888:5
3897:13 3900:23

supporting 3889:9
3899:11

suppose 3730:6
3734:20 3953:5

supposed 3733:20
3832:10

sure 3673:19
3674:4
3675:3,11
3676:15
3680:5,16
3682:13
3683:5,12,20
3684:2,8,25
3709:9 3725:10
3736:8 3749:8
3753:24 3771:25
3780:20 3784:15
3788:25 3791:4

3793:17 3794:5
3797:25
3807:7,11
3817:2 3820:4
3821:16
3824:18,25
3825:6
3828:9,19,25
3832:22 3840:16
3841:5
3851:1,15
3859:23 3869:14
3871:24 3895:10
3898:15
3940:10,16
3945:7 3950:13
3953:10

Surer 3681:11

surgeon
3935:22,24

surgery 3935:23

surrounded
3834:6

survey 3672:6,7,8
3719:5,17
3720:17
3721:4,18
3722:24
3723:6,8,17,19,2
0 3724:3
3726:13,18,21
3727:3,16
3728:12 3731:2
3733:17 3737:1
3738:18,19,25
3739:2 3740:17
3742:13,14,15,2
4 3743:25
3744:3,7,17
3745:6,9
3747:16 3748:2
3749:7,11,13
3751:18,19,22
3752:17,19,25
3753:12
3754:8,25
3756:6 3759:16
3764:10,23,25

3765:2,12,16,21
3766:1 3767:21
3769:20,21
3771:2
3772:16,19,24
3773:6,9,11,15
3774:7,11,13
3776:19 3783:3
3784:10
3785:12,17
3786:7 3791:12
3793:15
3795:10,17,21
3798:6,7,16
3800:5,8,9,10,11
,12,20,21,24
3801:18,19,21,2
2 3802:15
3805:21 3809:21
3811:21
3812:8,15,16
3813:9,12,17,18
3814:2,14
3815:2,17
3816:18,24
3817:11
3818:9,21,24
3819:7
3820:2,8,19,22
3821:19,20
3825:12,15,20
3827:13,17,22
3828:1,20
3830:14
3831:4,9
3832:14,15,23
3833:8,24
3835:6 3837:5
3838:1 3839:9
3842:14
3845:14,15,20
3850:15,23
3853:17 3857:18
3865:15 3866:19
3867:11
3870:21,24,25
3872:2
3876:12,13
3881:25
3886:1,3 3888:4

3902:9 3943:18

surveyed 3809:16
3861:6,17

surveys 3719:8
3724:12 3746:2
3753:20 3755:15
3766:10,17
3770:4,5
3776:13 3781:21
3795:12,18
3798:10,12
3802:18
3805:11,12
3809:11,12,15,1
7 3810:5
3813:21 3818:10
3821:24 3822:19
3823:17,20
3827:21
3870:20,22
3871:1,2,10,23
3872:1 3932:13

survival 3876:7,21
3877:1,21
3895:22,25
3896:1,22,23
3897:7,8,15
3898:7,11,12,15

survive 3877:4,22

sustained 3769:24
3772:1,12
3805:18 3806:9

SUZANNE
3668:21

switch 3742:9
3785:6 3823:25
3860:13 3879:4

switching
3822:14,15

sworn 3673:9
3717:3 3806:19
3872:20 3917:7

symbol 3678:23

system 3848:4

—————————
T
—————————

tab 3678:6
3679:5,15
3680:3 3682:12
3683:4 3709:7
3748:25
3749:13,19
3750:8 3754:3,6
3756:1,7
3766:20 3768:5
3771:8
3773:16,17
3776:18 3777:21
3778:24
3780:4,7,10
3786:7 3791:2,7
3792:12 3793:1
3810:13 3843:11
3873:8
3875:10,17
3921:13,16

table 3885:9

tabs 3747:19

tagged 3731:9

takeaway 3834:22

takeaways
3883:17 3884:1

taking 3765:12
3817:2 3848:18
3935:6 3963:23

talk 3681:13
3763:4 3813:8
3823:10 3836:2
3854:20
3857:3,12,13,15
3876:20 3899:19
3928:8,24
3930:22
3931:1,2
3932:4,9
3934:2,3 3952:4
3953:12

talked 3676:4
3781:8 3828:16
3832:25 3837:25
3934:23 3963:15

talking 3683:6
3708:11,15

3765:7 3792:25 3812:1 3813:5 3814:24 3817:25 3818:12 3822:11 3828:16 3840:6,9,12 3841:5,6 3849:21 3853:11 3854:5 3859:7 3898:11,15,17 3926:22 3939:19 3942:18

talks 3681:20 3709:18 3828:11 3890:10

target 3684:20 3813:19 3816:16 3817:22,24 3819:10 3833:11

targeted 3891:15

task 3826:19,23 3852:7 3925:5

taxes 3928:15

teach 3932:25

teaching 3808:5,7,8 3809:19 3926:10

teachings 3933:3

team 3674:6,12 3684:6 3816:25

teams 3674:13

Tech 3918:7

technical 3675:4 3871:4,6 3927:3 3940:9 3953:18 3954:7 3959:13

technically 3920:23

technique 3956:16

technological 3683:13

technology 3740:7 3791:22

telephone 3723:19

3738:18 3744:7 3746:2 3753:20 3755:15 3765:7 3801:19 3830:15,18,23 3870:21 3871:8

television 3719:11,19 3721:11

ten 3680:21,22 3846:25 3847:12,14 3848:14,17 3866:5 3871:16 3932:17

tend 3753:25 3775:4 3885:17 3899:22

tendency 3829:12 3830:9

tenders 3810:3

term 3684:19 3709:17 3710:13,17 3744:12 3746:19 3812:19 3866:1,2 3953:18 3957:23

terminated 3774:7

terms 3668:8 3679:13,17 3723:16 3725:19 3744:5 3755:21 3765:22,23 3780:19 3782:13 3789:19,23 3834:15 3859:5 3865:13 3937:8 3942:24,25 3943:7 3957:19,24

terrestrial 3790:15 3812:3 3827:8 3836:1 3854:25

test 3723:8

3730:3,17 3740:17 3797:6 3831:9 3842:1 3848:15 3851:11 3855:6 3866:23,24 3947:25 3948:1

tested 3845:3 3862:14 3863:25

testified 3673:10 3708:16,20,21 3710:3,5 3717:4 3803:5 3806:20 3872:21 3874:16 3884:10 3897:1,6 3917:8 3954:14

testify 3874:6

testimony 3672:3,11,15,16 3673:25 3675:23,25 3676:2 3677:21,23 3678:5,8,14,17,18 3679:20 3680:9,14 3708:4,9 3717:19 3721:25 3722:8,10,15,25 3725:1 3742:13 3748:19 3754:10,13 3756:19 3767:2,4,9,17,24 3774:17,20 3779:9 3781:5,12 3783:20 3799:4 3809:24 3810:2,11,21,24 3811:3 3816:15 3837:5,10,19 3838:23 3875:8,11,13 3876:6,19 3882:5 3883:3,5,8

3896:16,18,22 3897:1,2 3898:20 3899:8 3902:15,17 3921:19,21,24 3944:23 3945:11 3946:25 3947:2,9,10,12,16,17 3948:18 3949:11,16 3950:1,3,9,20 3952:1,2,9,17 3953:20 3962:25 3963:10,14

testing 3837:11,17 3866:19

tests 3855:12

textbook 3919:3

thank 3673:12,21 3678:3 3683:1 3710:22 3717:10,20,22 3718:14 3726:24 3731:24 3745:22 3746:14 3747:3,6 3751:2,14 3752:23 3756:12 3762:21 3768:3 3770:17 3773:18 3780:25 3786:9,12 3797:23 3806:12 3810:8 3816:10 3817:18 3820:6 3823:8 3830:24 3836:11,13,16 3846:17 3855:2 3868:23 3870:18 3872:3,6,8 3881:16 3883:6 3892:13 3893:1 3917:17,25 3921:18,22 3924:16,18 3927:11 3934:13 3938:15 3941:13 3949:9,23

3960:10 3961:18 3962:4,14,16 3964:2

that's 3674:14 3708:25 3746:10 3749:9,12,23 3752:21 3754:8 3755:8,17 3756:7 3758:4 3759:6 3760:2 3761:13 3762:17,20 3763:17 3764:14 3765:10 3768:5 3769:7,11,23 3770:8 3774:21 3775:8,20 3776:7 3781:3 3782:2 3786:18 3790:21 3794:13 3796:1 3799:8 3801:3,22 3806:7 3809:7 3810:14 3812:25 3817:4,16 3818:14 3819:11 3820:4,6,11 3823:5 3825:2 3826:2 3827:12 3828:13 3830:5 3831:15,16 3834:8 3835:10,13,22 3836:7 3837:12,17 3839:24 3840:14 3841:24 3844:13 3845:23 3854:11 3856:3 3866:7 3868:22 3880:2 3881:15 3895:17 3896:4 3899:12 3901:5,11,23 3902:3,10 3919:9 3924:19 3928:17 3930:3,7,8,10,17 ,21,23,25 3931:4,13,19

3932:2,4,9,24 3933:15,24 3935:9 3936:2,4 3944:12,19 3945:8,10 3946:22 3949:1 3950:23,25 3951:3 3952:11,14 3953:11,12 3954:6,11,21 3956:8,19 3957:12 3959:12,14,16 3962:4 3963:10,21,23

themself 3960:3

themselves 3742:14 3827:18 3848:10 3862:13

Theoretically 3862:5

theorist 3926:10

theory 3848:8 3856:17,18 3878:23 3890:5 3946:12,14,17 3956:11

therefore 3813:2 3828:22 3835:14 3845:22 3852:17 3865:3 3868:14 3929:6 3953:15

there's 3675:24 3681:4 3724:15 3745:1 3753:23 3768:5 3788:9 3791:17 3792:13 3794:7 3795:21 3801:23 3803:1 3813:17 3814:11,20,22 3822:9 3829:18,22 3834:7 3841:19 3887:23 3889:4 3896:4

3924:3,11 3930:10 3933:17 3934:3 3936:5 3941:9 3953:6 3956:3,5,21 3957:2

they'd 3734:5 3932:17

they're 3745:6 3765:7 3766:2 3776:11,12 3819:10 3821:17 3822:3 3827:23 3832:22 3833:11 3842:4 3920:23,24 3921:3 3922:24 3927:1,16 3957:24

they've 3748:8 3776:5 3847:17 3900:1

Thicke 3852:20

thin 3722:2

third 3738:1 3794:17 3811:15 3858:13 3902:14 3929:4 3930:17 3958:25 3959:1,12

third-party 3959:9

Thomas 3718:6

THORNE 3669:18 3962:21 3963:1,7,13,17,20

thousand 3894:7,23 3895:18 3931:12 3942:19 3943:13,15,24 3956:16

three-hour 3933:17

three-quarters

3868:13

throughout 3717:18 3720:6 3808:3 3809:4,13

thumb 3727:22

thumbing 3964:4

Thursday 3668:15

thus 3721:21

ties 3856:11

tiny 3800:13

tired 3860:12

title 3918:18 3940:14

titles 3918:16

today 3776:10 3783:5 3798:25 3803:5 3876:18 3894:2,8,16 3895:19 3926:22 3932:6 3938:20 3942:2 3945:25 3946:2,3 3957:20 3964:3

Todd 3669:17 3670:21

token 3853:19 3854:20

TOLLES 3669:2

Toluna 3813:25 3814:5 3815:5 3816:1,3 3817:13 3832:21

tomorrow 3776:11 3938:19 3949:5,8 3962:19 3963:22,24

TOOF 3669:23

tools 3803:3

top 3678:16,22 3728:8 3755:13 3766:16 3770:21

3786:11
3787:1,3
3795:19 3798:20
3800:16 3830:8
3892:4 3928:13

topic 3934:9
3944:2

top-level
3923:12,13
3924:25 3925:1

Toronto 3933:7

total
3732:13,14,17
3733:2 3783:20
3800:19 3812:22
3834:25
3849:13,14
3868:20

totality 3728:10

totally 3817:17
3846:6

touch
3746:18,21,23
3925:24

towards 3682:2
3721:13 3725:12
3815:3

Tower 3669:10

track 3927:2

tracked 3775:9

tracking 3720:19

tradeoff 3822:18
3823:6

tradeoffs 3822:12

traditional
3735:12 3737:22
3739:13 3740:11
3786:19,23
3787:4 3837:13

traffic 3813:6
3824:11

training 3935:5
3936:5

transaction
3955:20 3958:19

transactions
3926:8,9

transcript 3965:4

treat 3957:6
3958:25

tree 3717:13

TRES 3669:19

TRG 3813:18
3817:5,12
3831:10

tried 3710:7
3725:11,16,20,2
1,22 3736:5
3842:8
3863:2,3,4,10
3865:14

tries 3751:23

trips 3675:14

trivial 3935:9

true 3810:24
3836:8 3858:7
3873:13 3875:14
3885:17
3898:18,19
3965:4

truly 3925:2

truth 3673:9,10
3717:3,4
3769:15
3806:19,20
3872:20,21
3917:7,8
3948:10

try 3680:22
3681:23 3682:4
3683:15,19
3684:1,3 3723:6
3738:23 3747:1
3757:5 3761:15
3781:16 3848:11
3863:24 3891:6
3938:11

trying
3675:15,17,20
3681:5 3710:18
3721:5 3751:21
3788:23 3789:6
3801:13 3822:4
3841:19
3935:1,2

tune 3933:15

TuneIn 3720:11

turn 3678:6,10
3679:15 3680:3
3682:12 3683:3
3709:7,13
3722:2,9 3723:2
3724:6 3727:1
3748:24 3754:3
3755:11 3756:15
3759:13,15
3766:20 3770:13
3773:14 3777:21
3785:2 3793:1
3796:11 3810:13
3811:2,15
3812:12 3820:13
3827:15 3873:7
3878:8 3881:18
3902:14 3944:22
3960:12

turned 3784:20,23

Turning 3728:5

turnover 3677:6

turns 3819:5
3888:6

twice 3863:11

type 3794:12,13
3817:11 3820:22
3826:14 3833:8
3845:18 3849:12
3865:9 3870:4

types 3723:14
3781:9 3846:9
3853:21 3854:9
3879:1 3890:7

typical 3818:15
3854:2 3855:21

3886:6

typically 3766:9
3795:15 3884:2

typos 3810:25

U

U.K 3720:3

U.S 3719:11,19
3723:25 3817:25
3838:11
3846:3,22
3853:11 3854:7
3871:19 3920:10
3923:20 3924:22
3933:9
3958:21,22,23
3959:2

U.S.A 3719:25

U.S.-based 3812:2
3827:9 3838:3

UCLA 3807:15
3808:2,9

Uh-huh 3796:8

ultimate 3814:16
3833:18

ultimately 3685:6
3768:17 3814:24
3892:9

unbundling
3929:25 3953:4

unclear
3866:11,25

undergraduate
3718:8,17,18
3807:21

underlying
3774:10
3784:10,11

underreporting
3935:2

understand
3675:15 3684:10
3725:2,14
3743:2 3758:14

3784:13 3786:1
3788:25 3818:11
3821:9 3823:17
3837:10
3839:10,20
3841:6 3842:9
3845:5 3850:4
3852:9 3858:10
3867:25 3881:25
3884:10 3886:2
3892:16
3893:6,12,15
3894:18 3925:18
3927:22 3941:23
3942:23

understandable
3681:6

understanding
3678:19 3679:22
3752:19 3755:20
3758:1,6
3775:20 3805:7
3865:24 3927:19
3943:4

understands
3844:24,25
3866:1

understood
3725:4 3821:17
3824:11 3828:21
3831:7 3839:9
3851:24 3865:6
3866:20 3895:2
3926:9 3944:11

undoubtedly
3816:5

unexceptional
3928:18

unfortunately
3710:24

uninformative
3898:3,21

union 3878:25

unique 3930:15
3931:10 3954:25

uniquely

3923:17,23,24
3924:20 3928:1
3929:2 3930:16
3937:16
3945:5,9
3954:15,18
3956:22 3957:2
3958:12

United 3668:2
3721:6
3758:16,21,23
3814:7 3815:13

universities
3918:22

University
3718:20 3807:23
3873:18,19
3918:8,11,14
3919:1

unless 3825:12
3890:13
3938:7,8

unlike 3727:24
3941:1,16

unlimited
3763:20,23

unusual 3892:7

unusually 3718:12

unworkable
3960:4

upgrade 3888:13

upon 3726:14,18
3820:8 3832:12
3889:21 3936:12
3937:6,11
3955:3,7,19

upper 3792:12
3836:8

urban 3870:10

urging 3746:7

usable 3931:11

usage 3721:7
3775:3,5
3776:14

3777:12,17
3782:24 3785:18
3940:24

useful 3748:17
3935:5 3938:4

user 3758:6,9,11
3847:5 3860:2
3865:10
3883:12,21

users 3728:1
3758:3 3759:7
3777:8 3779:23
3790:23 3791:21
3814:25

user's 3847:4

usual 3833:13

usually 3802:2
3874:1

utility 3848:9
3852:25 3856:19
3858:12 3859:14

V
---

valid 3726:22

validation
3832:20

valuable 3861:16

valuation 3848:1,6
3857:5 3858:4

valuations
3848:19

value 3811:23
3812:17,22
3818:12
3821:6,8,15
3823:4,19
3825:4,15
3826:14
3834:12,25
3835:10,12,21,2
5 3841:16
3842:20 3843:17
3844:9,10,14,16,
17,20,22,25
3845:1,6,23

3848:13,22,25
3849:4,9,12,14,2
1,24,25 3850:5,9
3851:25
3852:10,14,17
3853:2,4,5,6
3855:7,15,20
3856:5,7,10,11,2
1 3857:13,19
3858:3,6,12,25
3860:2,19,21,22
3861:8,19
3862:3
3863:15,17
3864:13 3868:13
3869:17,19,23
3889:1

values 3825:24
3858:22 3859:18
3890:21

variables 3819:13

variety 3809:4

various 3684:16
3720:20 3779:20
3808:24 3809:3
3814:3,22
3819:20 3870:16
3919:6
3920:8,14

vary 3834:12
3849:19

varying 3733:3,7

vendor 3959:6

verification
3814:23

verify 3750:17

version 3678:25
3679:1,22
3733:13,20
3734:2,4,6,10,22
3772:15 3788:23
3789:6 3889:21

versions 3766:14

versus 3677:14
3682:1,17,18
3684:9 3721:9

3822:16 3826:15
3830:15 3845:6
3847:14 3848:17
3865:13 3871:25
3880:1 3930:7
3931:17,19
3932:10
3953:5,12

Vevo 3735:14
3738:2 3740:1

VI 3963:11

via 3734:25
3735:1
3837:13,14

vice 3873:20

video 3879:18

videos 3735:13
3738:2

view 3729:25
3812:9 3844:14
3862:7 3899:10

views 3896:21

virtually 3676:17
3729:1 3871:14

visit 3675:14

visiting 3790:19
3918:22

Volume 3668:8

voluntary 3815:19

volunteer 3735:17
3739:18

VSOP 3959:6

W

wait 3685:14
3902:23 3938:19

walk 3832:13
3882:23 3931:17

wards 3808:14

Warner
3674:20,22,23
3675:16 3676:20
3677:1,9,23

3682:17 3684:21
3709:11,21
3710:13,17

Warner's 3676:13

Washington
3668:4,14
3669:15,21,24
3670:5,9
3920:13

wasn't 3710:6
3743:17 3786:2
3859:17

watch 3738:1

watching 3735:13

Wawa 3676:18

ways 3721:3
3735:2 3737:14
3738:20 3886:15
3888:11
3924:1,3
3930:12 3958:14
3959:4

weather 3813:5
3824:12

Web 3668:9

Webcast 3768:12
3880:5

Webcaster
3876:21 3878:3
3895:25

webcasters 3876:7
3877:3,6,10,15,1
7,18,21 3878:6
3879:1,3 3880:6
3881:5
3893:7,24
3894:2,8,12,23
3895:5,22
3896:23
3897:8,16
3898:23 3942:1
3945:18

Webcasting
3878:4
3879:5,8,15,19

website 3762:10
3929:12

we'd 3778:17
3779:5 3780:15
3932:7

week 3678:19
3681:12 3732:8
3741:6 3746:17
3757:22 3780:6
3818:5 3823:1
3832:2,17
3854:2 3855:24
3919:1 3929:16

weekly 3777:8,12
3778:9 3780:6
3791:16,20
3792:10,13,17,2
1

weight 3855:19
3864:15 3868:3
3869:22

weighted 3723:25
3756:21

weights 3824:23
3825:13 3826:13
3834:19 3839:23
3840:23 3858:14

Weil 3669:6
3671:16
3917:6,23
3921:6,9
3939:10,17
3940:11
3941:5,25
3944:3
3948:4,16,22
3949:15,25
3952:8 3953:8
3954:14
3960:12,23
3961:6,21
3962:15

W-E-I-L 3917:23

Weil's 3952:1

welcome 3836:18

we'll 3717:7

3802:1 3924:16
3934:12 3935:14
3936:17
3949:5,7
3956:6,7
3957:3,5

we're 3684:20
3753:11 3758:10
3812:1 3813:5
3814:24 3817:25
3818:12 3819:23
3822:4,11,22
3823:2,3
3824:24 3826:22
3828:15 3831:2
3859:6 3898:16
3924:7 3938:6,8
3939:19 3942:18
3946:3 3963:19

west 3918:23

western 3933:14

we've 3679:25
3744:11 3750:14
3777:18,19
3795:11 3882:21
3942:16

WFAN 3845:21

Wharton 3718:19

whatever 3746:18
3751:12 3801:8
3829:6 3851:16
3852:15 3895:11
3942:17

whatsoever
3726:3

whereas 3830:20

Whereupon
3964:6

whether 3708:20
3723:8 3725:3,6
3730:1 3731:20
3736:19 3740:18
3758:19 3762:23
3763:10
3787:18,22,23
3797:11,15,18

3802:20
3803:14,19
3804:18 3818:20
3837:13 3838:17
3839:8,17,24
3840:7,10
3841:19 3844:19
3850:14 3851:24
3855:6,12
3856:21 3857:6
3860:3
3865:10,17
3866:10,19
3871:24
3874:18,21
3876:14
3877:5,16
3881:12 3893:20
3897:19
3898:4,7
3900:23 3941:21
3942:6 3943:15
3945:9,16,20
3946:7 3947:18
3950:4,5
3952:18

whichever 3723:4
3850:10

Whittle 3934:11

whoever 3835:21

whole 3673:9
3717:3 3806:19
3834:22 3872:20
3917:7 3935:13
3951:16

whom 3719:16
3813:15 3926:4

who's 3933:11
3936:3

wide 3680:17

widely 3720:23

wild 3762:15

WILEY 3669:13
3670:3

WILKINSON
3670:8

WILLIAMS
3669:19

willing 3770:22
3771:3,6 3773:1
3815:15
3886:4,8
3942:16
3943:1,2,6,7,10,
12,16,21 3956:2

willingness
3723:13 3725:5
3732:2 3733:11
3756:16
3764:19,23
3765:3 3766:3,7
3770:3,7
3772:19
3788:21,22
3802:6,11
3822:13 3859:20
3876:13
3882:9,12,14
3883:9,22,24
3884:3,4,6,14,18
,20
3885:7,11,14,19,
24 3886:21
3887:16,20
3888:3,10,20,25
3889:3
3890:7,15,18,24
3891:7,16
3892:5,7
3900:17
3901:3,21
3902:1,7

wills 3935:12

Winding 3853:9

window 3708:23

wish 3834:8
3852:14

withdraw 3897:3
3949:22

witness 3709:24
3710:24 3718:12
3724:24 3725:10
3726:4,9,16,23

3731:5,9,18,23
3735:24
3736:2,8,18,22
3737:2,8,12
3742:16,22
3743:1,6,16,19
3744:4,24
3745:2,11,20
3746:20
3767:5,12,15,18,
22 3768:2
3769:13 3770:18
3777:24 3783:25
3784:3,11,15,19,
24 3792:16,20
3793:4,17
3794:5,15
3795:4,22
3799:14,18,24
3801:1,6,15
3804:3 3806:17
3815:7,10,25
3816:13,21
3817:16 3820:3
3822:9
3825:6,17
3826:2 3827:5
3829:3,21
3830:6,16
3836:13 3846:1
3850:19 3851:12
3852:1,4,24
3853:13,18
3854:23 3858:16
3859:3,6,19
3867:18,23
3868:9,11,22
3870:23
3872:8,18
3873:4 3879:17
3880:2,16,21
3881:3,15
3883:4,7 3885:1
3888:24 3889:13
3890:2
3891:3,12,24
3897:1 3898:18
3917:3 3922:22
3924:2,19
3935:17 3938:22

3939:3,5
3948:5,7
3955:13 3956:23
3957:8,11,21
3958:1,4,10,20
3960:14,20
3961:10,15,18
3962:16
3963:22,23
3964:2

witnesses 3746:25
3767:4,9,14
3931:3

won 3808:12

wonderful
3871:22

worded 3754:2

wording 3725:17
3753:1 3785:24
3793:12,19
3797:13 3842:23
3853:22 3865:19

work 3673:21
3674:18 3677:22
3718:21,22
3719:7,17,22
3720:9,11
3725:15 3741:13
3742:15 3744:17
3745:6,25
3761:14 3764:25
3769:20 3795:20
3809:1,3,13
3817:4 3832:15
3853:3 3874:2,5
3882:3,4
3901:2,3,13
3923:16 3924:23
3925:7 3926:9
3931:15 3956:20

workable 3958:6

worked 3719:1
3720:10 3736:4
3813:16 3816:16

working 3719:24
3746:25 3805:1
3808:23 3884:11

3932:6 3935:21

works 3845:23
3871:13 3874:20
3945:18

world 3719:22
3720:1,7,12
3721:6,14
3755:8
3765:6,11,13,15,
19 3775:19
3787:23
3788:2,8,12
3790:12 3857:17
3860:8,10
3919:10 3940:10

worry 3830:11

worse 3685:6
3830:22

write 3829:6
3926:18 3931:10

writing 3954:12

written 3672:16
3721:24
3722:8,14
3754:12 3767:1
3808:21 3810:10
3825:11 3875:7
3876:19 3883:3
3899:8 3902:17
3919:3
3921:19,24
3933:16
3947:1,10,15,16
3948:17 3950:1
3952:1,2,9
3963:10

wrong 3725:8
3743:25 3856:3
3951:1,3

wrote
3791:7,11,15,17
3792:9 3824:3
3919:17 3921:21
3952:24

Y

Yahoo 3720:13

Yale 3918:4

yet 3725:20
3891:8 3921:4
3923:11 3955:3

York 3669:7,11
3920:18

you'll 3796:11

younger 3776:3

yourself 3873:2
3917:21 3925:14
3959:15 3960:6

YouTube 3735:14
3738:2 3739:25

you've 3679:12
3754:21 3766:13
3775:9 3776:14
3777:16 3778:1
3801:24 3812:14
3921:12
3937:17,23
3939:1
3957:1,9,23

Z
---

zero 3825:7,8,10
3845:1 3850:2
3852:10
3859:1,8
3868:17 3869:23
3883:22,23
3884:14 3885:8

zeros 3893:13